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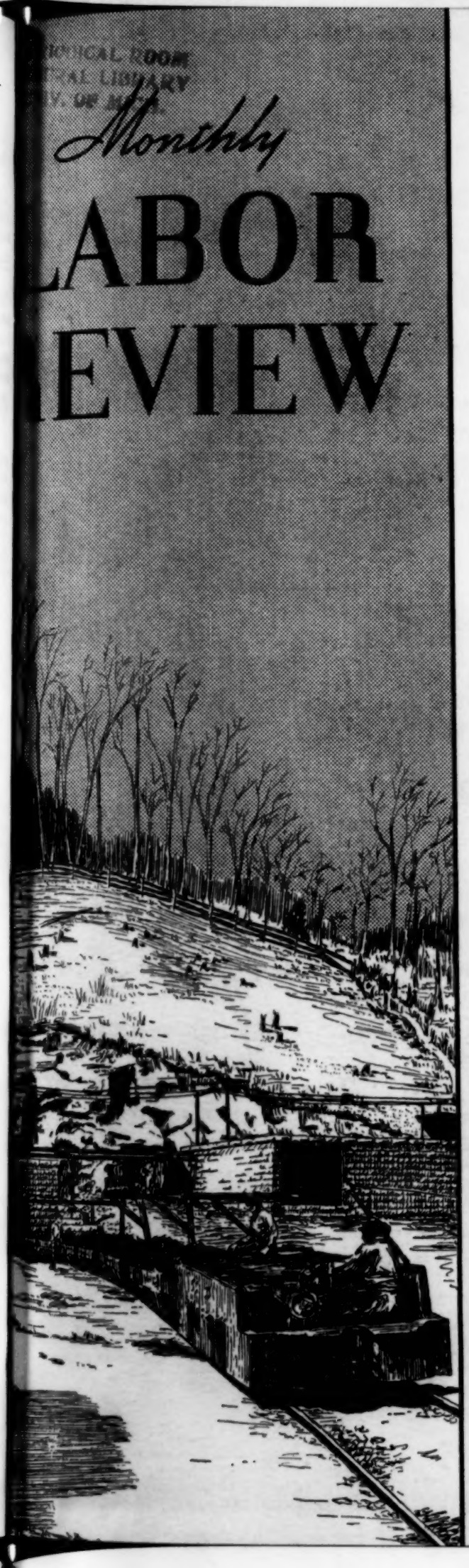

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In This Issue

Labor in Depression and Recovery

Earnings in Bituminous-Coal Industry

Recent Trends in Unemployment

Earnings of Professional Engineers

U. S. Department of Labor

BUREAU OF LABOR STATISTICS

UNITED STATES DEPARTMENT OF LABOR

Frances Perkins, Secretary

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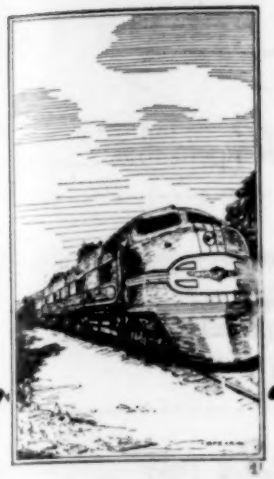

MONTHLY LABOR REVIEW

NOVEMBER 1937 VOL. 45, NO. 5

HUGH S. HANNA, *Editor*

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MONTHLY LABOR REVIEW

FOR NOVEMBER 1937

This Issue in Brief

Labor in Depression and Recovery.

IN MANUFACTURING and steam railroads and 13 other nonmanufacturing industries combined, employment in July 1932 was 36 percent below the 1929 average of 18,801,000, and in July 1937, 11 percent lower. In these large, varied, and substantially representative groups of industries, weekly pay rolls and per-capita weekly earnings also remained below the 1929 level, but per-capita weekly earnings, when measured in terms of cost of living, rose by July 1937 somewhat above the 1929 level. In manufacturing and the extracting of minerals, the employment in 1936 of the same proportion of the population as in 1929, at the average output per worker prevailing in 1936, would have resulted in a volume of production in these industries about 23 percent greater than the actual production. The study containing these and related statistics considers also the significance of various economic factors affecting the status of labor. Page 1045.

Bituminous-Coal Mining Wages, 1936.

WAGE EARNERS in the bituminous-coal mining industry worked an average of 32.3 hours per week and earned an average of 77.3 cents per hour and $24.96 per week, in the latter part of 1936. Wide variations existed between States, Utah showing the highest average hourly earnings (95.5 cents) and Alabama the lowest (54.3 cents). These figures are from the report of the Bureau's latest wage survey for the industry, made just before the Appalachian Agreement of 1937, which provided for a substantial increase in wage rates. Page 1082.

Male and Female Job Seekers.

ONE of the most striking facts developed in an analysis (p. 1093) of the records of the United States Employment Service is the difference in the movements of men and women on and off the office registers. The number of women seeking work fell by only 2.3 percent during the quarter April to July 1937, compared with a reduction in the male active file of 12.3 percent. This difference is partly due to the fact that the metal and transportation-equipment industries, which are almost exclusively male domains, enjoyed a much greater expansion of activity than the food and textile industries, which employ a larger proportion of women. But even in such industries as textiles the reduction in the number of woman applicants was proportionately less than that of men.

Increase in Union Wage Rates in Building Trades.

THERE was an increase of 7 percent in the index of union hourly wage rates for the building trades between 1936 and 1937. The sustained and accelerated rise in hourly wage rates from the low point in 1933 resulted in a 1937 index almost 13 percent higher than that of 1933. A slight increase in hours in 1937, 0.4 percent, appears to be chiefly a result of the abandonment by local unions of share-the-work plans as employment opportunities have increased. This is evidenced by the fact that most of the increases were from a 30-hour to a longer

week. There were scarcely any increases among the 40-hour scales. Page 1184.

Cooperative Housing.

DATA for 39 cooperative housing associations, covering the year 1936, showed that 35 were actually operating projects and the plans of 4 others, looking toward establishing housing facilities, were well advanced. The completed projects were located entirely in Greater New York but of those being planned two were in Wisconsin. The 30 associations for which information was obtained on number of families housed provided accommodations for 2,248 families. In Manhattan and the Bronx the majority of the apartments had 3 and 4 rooms each, but in Brooklyn there was a higher proportion of larger suites. Individual dwellings had been provided by only one association but the groups in Wisconsin contemplate building houses. Average monthly charges per room ranged from $4 to $22.12. Page 1146.

Monthly Earnings of Professional Engineers.

AN ANALYSIS of the rates of monthly compensation received by professional engineers solely for engineering employments shows that in 1929 median monthly earnings were $289. One-quarter earned more than $415, while only 10 percent had earnings greater than $609 a month. Between 1929 and 1934 there were marked reductions in these earnings. The greater part of the reductions occurred in the period 1929–32. There were considerable differences in the earning capacities of the several professional classes. Differences in educational background also had considerable effect upon earnings among both graduate engineers and nongraduate engineers. Page 1200.

Progress in State Labor Legislation.

OUTSTANDING gains in State labor legislation during the preceding year were reported by a number of State representatives at the annual conference on labor legislation held in Washington in October. The conference, the fourth to be called by the Secretary of Labor, concerned itself primarily with the administrative and enforcement problems that have accompanied the rapid adoption of regulatory laws. All but three States were represented by delegates appointed by the State governors. Page 1159.

Unemployment in Rhode Island.

IN RHODE ISLAND in January 1936 approximately 21 percent of the gainful workers and job seekers without occupational experience were unemployed, including 4.7 percent on relief projects, according to a census of the population of the State. The percentage employed part time was 5.1 and the sick, physically handicapped, those not reporting employment status, etc., constituted 2.3 percent. The most serious problem was presented by the 16 to 25 age group, in which 28.6 percent were reported as unemployed, including those on relief work. Page 1116.

Special Articles

LABOR IN DEPRESSION AND RECOVERY, 1929 TO 1937

By WITT BOWDEN, *of the Bureau of Labor Statistics*

ECONOMIC changes affecting labor during depression and recovery may be visualized by comparing the period immediately before the depression with the depth of the depression and the current period. For this purpose, comparisons of 1929, 1932, and 1936 are made in this article. The effects of seasonal variations are minimized by comparisons of July 1937 with the same month of former years.

Certain qualifications of the data should be kept in mind. In the first place, there was unemployment in 1929, and wages, production, prices, investment, consumption, and other aspects of the national economy displayed serious lack of equilibrium. In the second place, the year 1932 was not the lowest 12-month period of the depression nor was July 1932 the lowest month. The low period varied from industry to industry and was not identical for different parts of any particular industry or of the national economy as a whole. In the third place, comparison with 1929 is not to be interpreted as implying a return to ideal conditions.

In addition to direct comparisons in the field of labor statistics, this article considers such factors as production, population, prices, and the allocation of income to consumption and investment.

Summary of Principal Changes Affecting Labor

(1) *Employment.*—The estimated number of nonagricultural wage earners and salaried employees combined (excluding casual workers and the bulk of workers on emergency relief projects) was 28,962,000 in 1929 (monthly average), 21,089,000 in 1932, and 25,789,000 in 1936. Employment in July 1932 was 20,485,000, and the smallest volume of employment was in March 1933 (19,559,000). The estimate for May 1937 is 27,392,000. These figures are recent estimates by the Bureau of Labor Statistics. In manufacturing industries and in class I steam railroads and 13 other nonmanufacturing industries combined, the number of employees (excluding salaried workers in most of the industries) in 1929 was 18,801,000; in 1932, 12,788,000; and in 1936, 15,654,000. The number in July 1932 was 12,076,000, and in July 1937, 16,813,000. Changes in the number of employees resulted from changes in volume of production, in hours per worker, and in man-hour

output. Variations in these 3 factors caused extremely uneven losses and gains in employment in the separate industries.

(2) *Pay rolls.*—In the groups of industries last mentioned above (all manufacturing industries together with steam railroads and 13 other nonmanufacturing industries combined), average weekly pay rolls in 1929 totaled $494,500,000; in 1932, $259,150,000; and in 1936, $350,994,000. In July 1932, the amount was $236,447,000, less than half of the figure for 1929. In July 1937, weekly pay rolls totaled $406,022,000, about five-sixths of the figure for 1929. Pay rolls in the separate industries varied even more widely than the number of employees. Pay rolls were affected by changes in the number of employees, in weekly hours, and in wage rates. The industries that suffered the more extreme declines in production commonly experienced a comparatively large amount of part time and shortening of hours, and some of these industries also made comparatively large reductions in wage rates. Changes in weekly pay rolls and in the earnings of individual workers must be interpreted in the light of changes in cost of living.

(3) *Per-capita weekly earnings.*—In all manufacturing industries and in class I steam railroads and 13 other nonmanufacturing industries combined, per-capita weekly earnings in 1929 were $26.30; in 1932, $20.26; and in 1936, $22.42. In July 1932, the amount was $19.58 (26 percent less than the average for 1929); and in July 1937, $24.15 (8 percent less than the average for 1929). Because of the lower cost of living, per-capita weekly earnings in July 1937 were somewhat higher in terms of purchasing power than in 1929. But there were extreme variations in the different industries and in many cases the earnings of individuals, even when adjusted to the cost of living, were much lower than in 1929.

(4) *Hours, hourly earnings, and wage rates.*—Available information indicates that average weekly hours were much shorter in most industries in 1932 than in 1929. Average hours in manufacturing industries in July 1932 were 35.6 and in July 1937, 37.9. In June 1933, average hours in manufacturing industries rose to 42.6. There was an extensive decline under the National Industrial Recovery Act, the average for 1934 being 34.7. Average weekly hours are hours actually worked and must be distinguished from full-time or scheduled hours. Part time, overtime, labor turn-over, and other factors caused extreme variations in average weekly hours independently of changes in scheduled hours.

Average hourly earnings in all manufacturing industries combined increased from 46.6 cents in July 1932 to 65.7 cents in July 1937. There had been very extensive reductions from 1929 to 1932. The nullification of the National Industrial Recovery Act was followed by a sharp rise in average weekly hours and for a time by small

declines in hourly earnings. Average hourly earnings in the separate industries exhibited much greater extremes than average weekly hours.

(5) *Production.*—The extreme decline of production in manufactures is shown approximately by the fact that the Federal Reserve index of production in manufactures in July 1932 was 54 percent below the average for 1929. The increase in production after 1932 raised the index by March 1937 above the average for 1929, although by July 1937 it had fallen somewhat below the 1929 average. The production of minerals was somewhat more stable. The Department of Agriculture index of agricultural production was only 1 percent lower in 1932 than in 1929. From 1932 to 1936, the trend of agricultural production was the reverse of the trend in most of the other branches of production, the index for 1936 being 6 percent below 1929. The value of residential construction contracts awarded in 1932 was only a little more than one-seventh of that in 1929 and the figure for 1936 was less than half of the 1929 figure. Construction costs, however, were relatively low in 1932. Other measures of production and business activity showed a wide variation.

(6) *Labor productivity and labor cost.*—In all manufacturing industries combined, output per man-hour was about 15 percent greater in 1936 than in 1932. In the separate industries, both manufacturing and nonmanufacturing, there were extreme variations. Output per worker in manufacturing industries as a whole declined for a time after 1929 because of the extreme reductions both in volume of production and in average weekly hours. The increase in hours and the expansion of production combined to reverse the trend after 1932. In 1936, the estimated output per worker was 19 percent greater than in 1932. Estimated labor cost per unit of output in manufacturing in 1936 was 6 percent greater than in 1932 but was 15 percent less than in 1929. The extreme fluctuations in production, man-hour output, and wage rates account for wide variations in labor cost per unit of output. It must be noted that the figures of both labor productivity and labor cost per unit of output are not precise measurements but merely approximations.

(7) *Growth of population in relation to production and employment.*—The population of the United States at the census of 1930 was 122,775,000. The estimated population in July 1929 was 121,527,000 and in July 1936, 128,429,000, an increase of 5.7 percent. In manufactures and the production of minerals, there are roughly comparable figures of production and number of workers. The index of industrial production (manufactures and minerals combined) in 1936 was 88 percent of 1929. The number of industrial workers (in manufactures and minerals) employed in 1929 was 9,736,000. The number in 1936 was 8,361,000 or 85.9 percent of the number in 1929. If the same proportion of the population had been employed in 1936 as in 1929, the number would have been 10,289,000. This is 1,928,000

or 23 percent more than the number actually employed. This would have been possible, at the rate of output per worker prevailing in 1936, only with a volume of production 23 percent greater than the actual production. Under these conditions the 1936 production would have been only 8 percent larger than the 1929 production; for the increase in man-hour output between 1929 and 1936 was accompanied by a considerable decline in average weekly hours.

(8) *Capital-goods and consumption-goods industries.*—Before 1929, there was a rapid expansion of the capital-goods and durable-goods industries. The expansion of these industries, including residential construction, was in part a result of deterioration and deferred replacement during the war period. Employment in these industries, combined with speculative incomes and with consumer credits based largely on installment buying, greatly increased the demand for ordinary consumption goods. But when the peak of capital-goods replacement and expansion was reached, the decline of employment and pay rolls in the capital-goods industries and in residential construction reduced the demand for consumption goods, and this reduction was accelerated by the curtailment of speculative profits and of consumer credits. The reduced activity in the consumption-goods industries in turn still further limited the demand for construction and for capital goods even in the replacement field. Thus, the expanding spiral became a contracting or descending spiral.

(9) *Prices and economic adjustment.*—A widely accepted view had assumed that the maintenance of competitive prices and costs would cause an automatic adjustment of income, credit, investment, and consumption in a manner that would sustain production and employment. But there were serious fluctuations and disparities even before the depression. Basic elements in the national economy, such as industrial production, agricultural production, residential construction, department-store sales, pay rolls in manufactures, and gross farm income, afforded no basis for the extreme expansion of bank loans and investments, new capital issues, and stock-market prices. Before 1929, commodity prices were comparatively stable in the face of economies accompanying rapid technological advances, and in spite of the inflation of prices that had in part survived the World War. After 1929, the rigidity of certain prices and costs, notably interest rates on long-term debts, and disparities in the price structure, notably between industrial and agricultural commodities, directed attention to the inadequate functioning of the price system and to the general problem of economic adjustment.

Employment and Earnings in Main Industry Groups After 1929

Beginning in 1929, the Bureau of Labor Statistics obtained detailed reports regarding employment and pay rolls, not only from manufacturing industries but also from 13 important nonmanufacturing

industries. These reports, together with data on steam railroads obtained by the Interstate Commerce Commission, give a comprehensive view of employment and earnings in the principal fields of American industry outside of construction work. A classification broadly functional includes four main groups: (1) Manufactures, which are subdivided into (*a*) durable-goods industries and (*b*) nondurable-goods industries; (2) the minerals-producing industries; (3) transportation, communication, and local utilities; and (4) the trade and service industries. (See table 1.)

The monthly average of number of wage earners [1] in all manufacturing industries and 14 nonmanufacturing industries [2] combined, for which comparatively adequate information is available, was 18,801,000 in 1929; 12,788,000 in 1932; 12,076,000 in July 1932; and 15,654,000 in 1936. The number in July 1937 was 16,813,000, 39 percent more than in July 1932 and 11 percent less than the average for 1929. Weekly pay rolls were curtailed during the depression much more than employment. The average for 1932 was $259,150,000 as compared with $494,500,000 in 1929. In July 1932, the figure was $236,447,000. The upturn by July 1937 increased weekly pay rolls 72 percent above July 1932, but the figure for July 1937 was still 18 percent smaller than the average for 1929. The adjustment of weekly pay rolls to the cost-of-living index gives an estimated purchasing power of the wage outlay for July 1937 62 percent greater than in July 1932 and 3 percent smaller than the average for 1929. Per-capita weekly earnings in the same groups of industries were $26.30 in 1929, $20.26 in 1932, and $22.42 in 1936. The amount in July 1932 was $19.58, and in July 1937, $24.15. When adjusted to the cost of living, per-capita weekly earnings in July 1937 were 16 percent higher than in July 1932 and 8 percent higher than the average for 1929.

In some of the nonmanufacturing industries, wage earners cannot be separated from salaried employees. Since employment, total compensation, and per-capita weekly compensation of salaried employees are usually more stable than in the case of wage earners, the index numbers (table 1) have a slight upward bias, especially in 1932. Some of the nonmanufacturing industries, especially metalliferous mining, nonmetallic mining and quarrying, and construction, were affected more severely by the depression than manufacturing as a whole. In general, however, the nonmanufacturing industries exhibited somewhat greater stability of employment than the manufacturing industries.

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[1] Salaried employees also are included in a few of the industries.

[2] The 14 nonmanufacturing industries are steam railroads (class I), anthracite mining, bituminous-coal mining, metalliferous mining, quarrying and nonmetallic mining, crude-petroleum producing, telephone and telegraph, electric light and power and manufactured gas, electric railroad and motorbus operation and maintenance, wholesale trade, retail trade, hotels (year-round), laundries, and dyeing and cleaning. See the Bureau of Labor Statistics monthly bulletin, Employment and Pay Rolls, or the section devoted to the trend of employment and pay rolls in the Monthly Labor Review.

TABLE 1.—*Employment, Pay Rolls, and Earnings in Manufacturing and in 14 Non-manufacturing Industries, 1929, 1932, 1936, July 1932, and July 1937*

Industry	Average			July	
	1929	1932	1936	1932	1937
1. Manufactures:					
All manufacturing industries:					
Number of wage earners [1]	8,767,000	5,488,400	7,693,400	5,057,300	8,494,300
Weekly pay rolls (in thousands)	$221,750	$94,346	$167,461	$81,700	$204,110
Per-capita weekly earnings	$25.29	$17.19	$21.77	$16.15	$24.03
Durable goods:					
Number of wage earners	4,491,900	2,286,900	3,669,800	2,166,800	4,287,500
Weekly pay rolls (in thousands)	$123,805	$39,125	$88,771	$34,397	$114,566
Per-capita weekly earnings	$27.56	$17.11	$24.19	$15.87	$26.72
Nondurable goods:					
Number of wage earners	4,275,100	3,201,500	4,023,600	2,890,500	4,206,800
Weekly pay rolls (in thousands)	$97,945	$55,221	$78,691	$47,303	$89,544
Per-capita weekly earnings	$22.91	$17.25	$19.56	$16.36	$21.29
2. Mining, quarrying, and crude-petroleum producing: [2]					
Number of wage earners [1]	968,500	575,000	667,592	501,448	683,100
Weekly pay rolls (in thousands)	$25,871	$9,815	$15,157	$7,601	$16,023
Per-capita weekly earnings	$26.71	$17.07	$22.70	$15.16	$23.46
3. Transportation, communication, and local utilities: [3]					
Number of employees [1]	2,958,215	2,027,954	2,049,447	1,997,402	2,225,721
Weekly pay rolls (in thousands)	$86,411	$52,871	$59,866	$50,217	$66,103
Per-capita weekly earnings	$29.21	$26.07	$29.21	$25.14	$29.70
4. Trade and service industries: [4]					
Number of employees [1]	6,107,700	4,696,800	5,243,324	4,520,100	5,409,900
Weekly pay rolls (in thousands)	$160,468	$102,118	$108,510	$96,929	$119,786
Per-capita weekly earnings	$26.27	$21.74	$20.69	$21.44	$22.14
5. Groups 1–4 combined:					
Number of employees [1]	18,801,415	12,788,154	15,653,763	12,076,250	16,813,021
Weekly pay rolls (in thousands)	$494,500	$259,150	$350,994	$236,447	$406,022
Per-capita weekly earnings	$26.30	$20.26	$22.42	$19.58	$24.15
INDEX NUMBERS (AVERAGE 1929=100)					
1. Manufactures:					
All manufacturing industries:					
Number of wage earners [1]	100.0	62.6	87.8	57.7	96.9
Weekly pay rolls	100.0	42.5	75.5	36.8	92.0
Per-capita weekly earnings	100.0	68.0	86.1	63.9	95.0
Durable goods:					
Number of wage earners	100.0	50.9	81.7	48.2	95.4
Weekly pay rolls	100.0	31.6	71.7	27.8	92.5
Per-capita weekly earnings	100.0	62.1	87.8	57.6	97.0
Nondurable goods:					
Number of wage earners	100.0	74.9	94.1	67.6	98.4
Weekly pay rolls	100.0	56.4	80.3	48.3	91.4
Per-capita weekly earnings	100.0	75.3	85.4	71.4	92.9
2. Mining, quarrying, and crude-petroleum producing: [2]					
Number of wage earners [1]	100.0	59.4	68.9	51.8	70.5
Weekly pay rolls	100.0	37.9	58.6	29.4	61.9
Per-capita weekly earnings	100.0	63.9	85.0	56.8	87.8
3. Transportation, communication, and local utilities: [3]					
Number of employees [1]	100.0	68.6	69.3	67.5	75.2
Weekly pay rolls	100.0	61.2	69.3	58.1	76.5
Per-capita weekly earnings	100.0	89.3	100.0	86.1	101.7
4. Trade and service industries: [4]					
Number of employees [1]	100.0	76.9	85.8	74.0	88.6
Weekly pay rolls	100.0	63.6	67.6	60.4	74.6
Per-capita weekly earnings	100.0	82.8	78.8	81.6	84.3
5. Groops 1–4 combined:					
Number of employees [1]	100.0	68.0	83.3	64.2	89.4
Weekly pay rolls	100.0	52.4	71.0	47.8	82.1
Per-capita weekly earnings	100.0	77.0	85.2	74.4	91.8

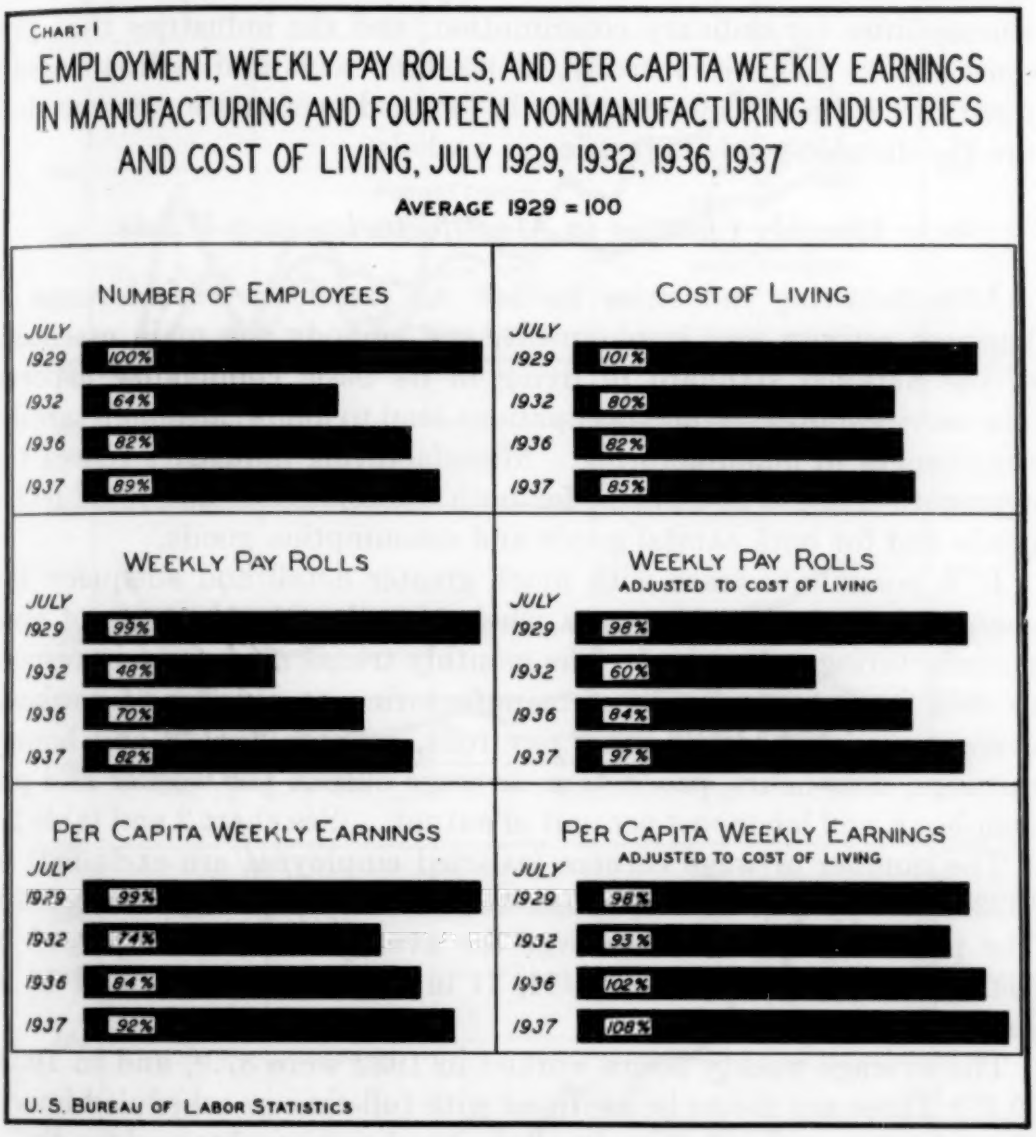
[1] In groups 1 and 2 salaried employees and, in most cases, home office (central administrative) employees are excluded. In many of the industries in groups 3 and 4 wages and salaries cannot readily be separated, and many salaried employees are included.

[2] Anthracite mining, bituminous-coal mining, metalliferous mining, quarrying and nonmetallic mining, and crude-petroleum producing.

[3] Class I steam railroads, electric-railroad and motorbus operation and maintenance, telephone and telegraph, and electric light and power and manufactured gas.

[4] Wholesale trade, retail trade, hotels (year-round), laundries, and dyeing and cleaning.

Particularly significant in the manufacturing group are the comparative figures for the durable-goods and the nondurable-goods industries. Durable goods, broadly defined, include iron and steel and their products, machinery, transportation equipment, nonferrous metals and their products, lumber and allied products, and stone, clay, and glass products. Industries that predominantly produce these goods are classified by the Bureau of Labor Statistics as durable-goods industries; and others are classified as nondurable-goods



industries. Employment in July 1932 in terms of percentages of 1929 was only 48 percent in the durable-goods industries but was 68 percent in the nondurable-goods industries. Durable-goods weekly pay rolls in July 1932 were only 28 percent, while nondurable-goods pay rolls were 48 percent of the 1929 figure. Per-capita weekly earnings in July 1932 in durable goods were 58 percent and in nondurable goods 71 percent of 1929. The percentages of increase from July 1932 to July 1937 were much greater in the durable-goods than in the non-

durable-goods industries, but both groups remained somewhat below the 1929 levels. When hours of work are substantially normal, per-capita weekly earnings in the durable-goods industries are materially higher than in the nondurable-goods industries. Even in July 1932, when part time was much more prevalent in the durable-goods industries, per-capita weekly earnings were $15.87 as compared with $16.36 in the nondurable-goods industries. These contrasting tendencies in the two types of industries are extremely significant in any analysis of business instability. The durable-goods industries produce many commodities for ordinary consumption; and the industries that produce capital goods exclusively, as machine tools and railroad equipment, are subject to fluctuations in demand even more extreme than are the durable-goods industries as a whole.

Monthly Changes in Manufacturing as a Whole

Manufacturing industries include an extremely varied range of business activity and employment, and embody the main essentials of the national standard of living in its basic commodity aspects. The service industries and occupations tend to follow, although tardily, the changes in manufacturing. Manufacturing industries reflect the aggregate changes in demand for both durable goods and nondurable goods and for both capital goods and consumption goods.

It is possible to trace with much greater detail and adequacy the changes in manufacturing as a whole than in the aggregate of nonmanufacturing enterprise.[3] The monthly trends are known in respect to such important aspects of manufacturing as number of workers, average weekly hours, weekly pay rolls, average weekly and hourly earnings, man-hours, production, average output per worker and per man-hour, and labor cost per unit of output. (See chart 2 and table 2.)

The number of wage earners (salaried employees are excluded) in 1932 was only a little more than three-fifths of the number in 1929. The percentages of increase over the average number employed in 1932 were 10 in 1933, 26 in 1934, 31 in 1935, 40 in 1936, and 55 in July 1937.

The average weekly hours worked in 1932 were 37.9, and in 1936, 39.1. These are not to be confused with full-time or scheduled hours. They are the average hours actually worked and are obtained by dividing the total number of man-hours worked by the total number of workers on the pay rolls of reporting establishments during the monthly reporting period; that is, the week ending nearest the middle of each

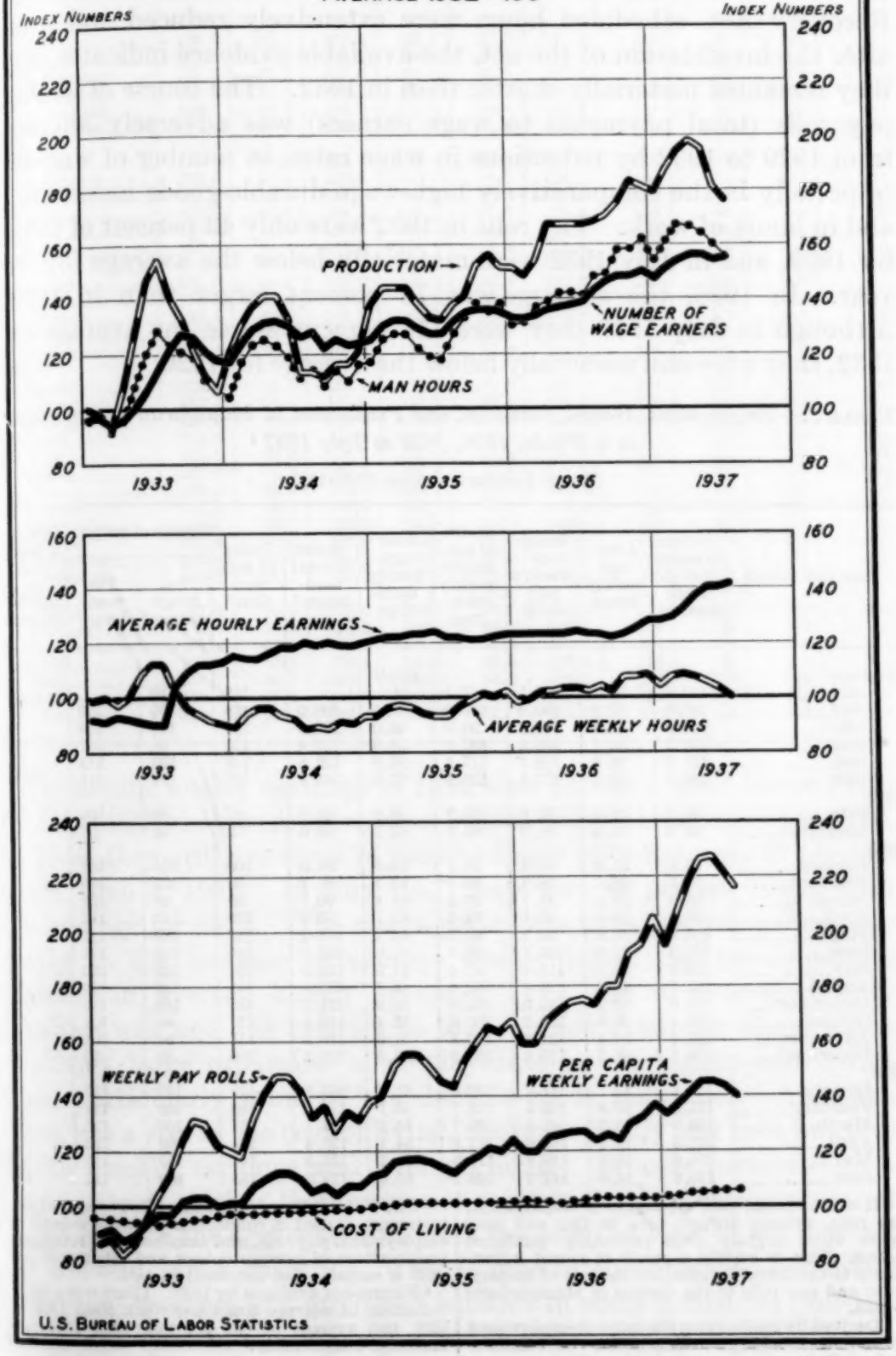
[3] Among the sources of information available for manufacturing industries are monthly reports to the Bureau of Labor Statistics from representative establishments in most of the manufacturing industries; the biennial Census of Manufactures undertaken by the Bureau of the Census; and the production indexes of the Board of Governors of the Federal Reserve System. Revised indexes relating specifically to labor in manufacturing industries are available in the Bureau of Labor Statistics monthly bulletin, Employment and Pay Rolls, December 1936, and latest information regarding all industries reporting to the Bureau is given in current numbers of this bulletin and of the Monthly Labor Review.

CHART 2

EMPLOYMENT, EARNINGS, AND PRODUCTION IN MANUFACTURING INDUSTRIES AND COST OF LIVING

JANUARY 1933 TO JULY 1937

AVERAGE 1932 = 100



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month. Average weekly hours are therefore affected by part time, overtime, labor turn-over, plant shut-downs, and other factors. The increase in average weekly hours in 1936 does not mean that full-time or regularly scheduled hours were longer than in 1932. A 67-percent increase in production between 1932 and 1936 greatly reduced plant shut-downs, part time, etc. Under the National Industrial Recovery Act, scheduled hours were extensively reduced and even after the invalidation of the act, the available evidence indicates that they remained materially shorter than in 1932. The course of weekly pay rolls (total payments to wage earners) was adversely affected from 1929 to 1932 by reductions in wage rates, in number of workers (especially in the comparatively high-wage durable-goods industries), and in hours of work. Pay rolls in 1932 were only 43 percent of those for 1929, and in July 1932 were materially below the average for the year. In 1936, the average was 78 percent larger than in 1932. Although in July 1937 they were 116 percent above the average for 1932, they were still materially below the average for 1929.

TABLE 2.—*Employment, Hours, Earnings, and Production in Manufacturing Industries as a Whole, 1929, 1932 to July 1937* [1]

[Index numbers: average 1932=100]

Year and month	Index of number of wage earners	Average weekly hours	Index of weekly pay rolls	Index of per-capita weekly earnings	Average hourly earnings	Index of total man-hours [2]	Index of production [3]	Index of output		Index of labor cost per unit of output [3]
								Per wage earner [3]	Per man-hour [3]	
Average:					*Cents*					
1929	159.8	(4)	235.1	147.1	(4)	----	189	118	----	124
1932	100.0	37.9	100.0	100.0	46.5	100.0	100	100	100	100
1933	109.9	37.9	106.5	96.9	46.0	109.9	119	108	108	89
1934	126.0	34.7	135.6	107.6	54.8	115.4	124	98	107	109
1935	131.3	36.6	153.7	117.1	56.8	126.8	143	109	113	107
1936	140.3	39.1	177.6	126.6	57.5	144.8	167	119	115	106
1932:										
July	92.2	35.6	86.6	93.9	46.6	86.6	87	94	100	100
December	98.2	38.2	91.2	92.9	43.2	99.0	92	94	93	99
1933:										
January	95.6	37.5	86.4	90.4	42.6	94.5	100	105	106	86
February	97.3	38.1	88.4	90.9	42.3	97.8	98	101	100	90
March	93.9	36.6	81.7	87.0	43.4	90.7	92	98	101	89
April	96.0	38.0	85.8	89.4	42.7	96.3	108	113	112	79
May	100.5	40.8	94.2	93.7	42.2	108.2	127	126	117	74
June	107.2	42.6	103.7	96.7	41.8	120.5	146	136	121	71
July	114.4	42.5	111.4	97.4	41.9	128.2	154	135	120	72
August	121.5	38.5	124.4	102.4	48.2	123.4	141	116	114	88
September	127.0	36.2	130.6	102.8	50.9	121.3	133	105	110	98
October	126.4	35.8	130.2	103.0	52.1	119.4	121	96	101	108
November	121.4	34.4	121.8	100.3	51.9	110.2	111	91	101	110
December	118.5	34.2	119.6	100.9	52.5	106.9	106	89	99	113
1934:										
January	116.8	33.7	117.7	100.8	53.3	103.8	119	102	115	99
February	123.8	35.8	132.1	106.7	53.1	117.0	130	105	111	102
March	128.9	36.3	141.4	109.7	53.1	123.5	137	106	111	103
April	131.3	36.2	146.8	111.8	54.1	125.4	141	107	112	104
May	131.6	35.4	146.8	111.6	55.1	122.9	141	107	115	104
June	129.6	34.8	142.2	109.7	55.0	119.0	133	103	112	107

[1] It will be noted that the figures of employment, pay rolls, average output, etc., in this and later tables differ slightly from previously published figures. This is mainly a result of recent adjustments of the Bureau's monthly indexes of employment and pay rolls to the Census of Manufactures of 1933.

[2] Derived by multiplying the index of employment by an index of average weekly hours. The latter is derived from a smaller sample than the former.

[3] The Federal Reserve index, without seasonal adjustments, is used in connection with the indexes of employment, pay rolls, and man-hours for rough approximations of average output and labor cost per unit of output. See comment in text.

[4] Figures not available for 1929. There was a large reduction in average hours per week from 1929 to 1932, and average output per man-hour therefore increased considerably.

TABLE 2.—*Employment, Hours, Earnings, and Production in Manufacturing Industries as a Whole, 1929, 1932 to July 1937*—Continued

Year and month	Index of number of wage earners	Average weekly hours	Index of weekly pay rolls	Index of per-capita weekly earnings	Average hourly earnings	Index of total man-hours	Index of production	Index of output		Index of labor cost per unit of output
								Per wage earner	Per man-hour	
1934:										
July	126.0	33.4	132.3	105.0	55.6	111.0	113	90	102	117
August	127.6	33.9	136.2	106.7	55.5	114.1	113	89	99	121
September	122.3	33.3	127.4	104.2	55.9	107.5	111	91	103	115
October	125.5	34.3	134.1	106.9	55.3	113.6	116	92	102	116
November	122.7	34.1	130.8	106.6	55.4	110.4	116	95	105	113
December	124.4	35.2	138.4	111.3	56.0	115.6	121	97	105	114
1935:										
January	125.5	35.2	140.1	111.6	56.4	116.6	138	110	118	102
February	129.9	36.4	150.9	116.2	56.7	124.7	144	111	115	105
March	131.6	36.6	154.5	117.4	56.8	127.1	144	109	113	107
April	131.8	36.4	154.5	117.2	57.1	126.5	144	109	114	107
May	129.5	35.8	149.6	115.5	57.1	122.4	138	107	113	108
June	127.0	35.4	145.3	114.4	57.5	118.6	133	105	112	109
July	127.5	35.2	143.3	112.4	56.9	118.4	132	104	111	109
August	131.8	36.6	153.0	116.1	56.8	127.3	138	105	108	111
September	134.5	37.4	158.8	118.1	56.3	132.8	141	105	106	113
October	136.5	38.2	164.7	120.7	56.4	137.6	152	111	110	108
November	135.6	37.8	162.9	120.1	56.7	135.2	156	115	115	104
December	134.8	38.7	167.2	124.0	57.2	137.6	151	112	110	111
1936:										
January	132.5	37.3	159.1	120.1	57.3	130.4	151	114	116	105
February	132.7	37.4	158.8	119.7	57.1	131.0	148	112	113	107
March	134.2	38.6	167.2	124.6	57.2	136.6	154	115	113	109
April	136.0	38.7	170.9	125.7	57.3	138.9	167	123	120	102
May	137.1	39.2	174.1	127.0	57.4	141.8	167	122	118	104
June	137.6	39.2	174.8	127.0	57.5	142.3	167	121	117	105
July	139.2	38.5	172.8	124.1	57.2	141.4	167	120	118	103
August	142.7	39.4	180.0	126.1	57.1	148.4	168	118	113	107
September	145.8	38.7	180.2	123.6	56.9	148.9	170	117	114	106
October	147.6	40.5	191.8	129.9	57.4	157.8	175	119	111	110
November	147.9	40.6	195.5	132.2	57.9	158.4	183	124	116	107
December	149.8	41.1	205.2	137.0	59.4	162.4	181	121	111	113
1937:					*Cents*					
January	147.3	39.6	195.5	132.7	59.6	153.9	179	122	116	109
February	151.1	40.4	206.5	136.7	60.2	161.1	187	124	116	110
March	154.4	41.0	217.9	141.1	61.3	167.1	194	126	116	112
April	155.9	40.4	226.1	145.0	63.8	166.2	198	127	119	114
May	156.2	39.8	226.7	145.1	64.9	164.0	195	125	119	116
June	154.4	39.2	221.8	143.7	65.3	159.6	181	117	113	123
July	154.8	37.9	216.4	139.8	65.7	154.8	176	114	114	123

Per-capita weekly earnings in 1932 were almost a third below 1929. In July 1932, they were more than a third below the average for 1929. In 1936, they still averaged 14 percent below 1929 but were 27 percent larger than in 1932. In July 1937, they were 40 percent larger than the average for 1932. The rise in per-capita weekly earnings was due partly to the increase in average weekly hours and partly to the increase in average hourly earnings. The rise in average hourly earnings was not due entirely to higher wage rates, for there was a relatively large expansion of employment in the higher-paid industries, particularly some of the durable-goods industries. Although there was a rise in the cost of living, not only weekly pay rolls but per-capita weekly earnings and average hourly earnings increased to a larger extent, so that there were net gains in the purchasing power of wages both in the aggregate and from the point of view of the individual worker. (See chart 2.) This is true of the average, but many individual workers and groups of workers in some industries failed to obtain increases in earnings equal to the rise in cost of living.

Employment is ordinarily measured by the number of employees, but for some purposes it is important to know the total number of man-hours.[4] An index of man-hours makes possible, for example, a more accurate measure of changes in labor productivity. The prevalence of shorter hours in 1934 and 1935 as compared to 1932 lowered the index of total man-hours somewhat below the index of number of wage earners. In 1934, the number of wage earners was 26 percent greater than in 1932 while the number of man-hours was only 15 percent greater. In 1936, the lengthening of hours raised the index of man-hours to 45 percent above 1932, while the index number of wage earners was only 40 percent above 1932. In July 1937, the slackening of business enterprise was accompanied by a decline in average weekly hours, and the index of mean-hours in July 1937 was the same as the index of number of wage earners. (See table 2.)

The index of production in manufactures, which is the Federal Reserve index converted to 1932 as 100 percent, was 89 percent higher in 1929 than in 1932, or 47 percent lower in 1932 than in 1929. There was a steady increase after 1932, the index in 1936 showing a rise of 67 percent and in July 1937 of 76 percent above the average for 1932. The July index number was lower than earlier in the year, the highest point, which was attained in April, being only 3 percent lower than the figure for April 1929. The significance and limitations of the estimates of production, labor productivity, and labor cost per unit of output (table 2) are discussed later.

Hours, Hourly Earnings, and Wage Rates

The general course of employment, pay rolls, and per-capita earnings can be traced in a comparatively large portion of business enterprise, including manufacturing and 14 important nonmanufacturing industries (table 1). Changes in average weekly hours and average hourly earnings are less adequately known, especially before 1932, and information regarding wage rates is extensive but fragmentary.

Changes in hours and wage rates are basically important and controversial because they affect directly the costs of production borne by competing employers, the prices paid by consumers, and the aggregate income and leisure of workers. Wage earners are agents of production hired by employers, and wages are a significant element in competitive costs of production. Shorter hours and higher rates are therefore likely to be viewed by the individual employer as adding to his cost of production, curtailing his competitive power, and reducing employment by the impairment of profits from the hiring of labor. At the same time, wage earners are also consumers, and in an industrialized country wages are a vitally important proportion of income

[4] The index of total man-hours is derived by multiplying the index of employment by an index of average weekly hours. The coverage of reports of hours is smaller than the coverage of employees.

used directly and immediately for maintaining demand for the products of industry. From the point of view of the wage earner and also from the point of view of aggregate national demand, on which the profitable operation of industry vitally depends, long hours and low wage rates, unless accompanied by similar reductions in other costs and by corresponding reductions in cost of living, tend to deprive the worker of income as well as leisure and tend to obstruct the flow of income and of the output of productive facilities into the channels of consumption.

Even if lower wages found quick and complete expression in lower prices paid by consumers for the products of labor, wage earners would not be able to buy as much as formerly unless all other production costs were similarly reduced, with corresponding reductions in prices. If the price, for example, of a given article is $10 and wages account for half of the price, a 10-percent reduction of all wages forming a part of the price would make possible the sale of the article for $9.50. But this is only a 5-percent reduction in the price, and the purchasing power of wages is therefore reduced. If the demands of consumers other than wage earners are perfectly elastic, their increased purchases of this or other articles would compensate, in the economy as a whole, for the lowered purchasing power of wage earners; but an increase in the purchasing power of larger incomes does not ordinarily mean a corresponding increase in consumption. What is likely to happen is an increase of speculative or superfluous investment or even hoarding and an ultimate deflation of income and investment, as during the period from 1929 to 1932. But there remains for the individual employer, especially in sharply competitive industries, the problem of reconciling labor cost as an element in his particular costs of production with wages as a part of the general flow of income and consumption. It is this problem which has directed attention to the possibilities of concerted action, public and private, for maintaining the income of wage earners.

In 1936 average weekly hours were longer as a rule in the manufacturing industries that produce durable goods than in those that produce nondurable goods. In the group classified by the Bureau of Labor Statistics as iron and steel and their products, not including machinery, the only industries with average weekly hours less than 40 were 3 comparatively small industries—cast-iron pipe, plumbers' supplies, and tin cans and other tinware. In most of the industries in the other durable-goods groups average hours were above 40 per week. Notable exceptions were electrical machinery, apparatus, and supplies, and automobiles. In 3 of the nondurable-goods groups (textiles and their products, leather and its manufactures, and tobacco manufactures), average hours were below 40 per week. In the food and kindred products group, hours were predominantly above 40 per

week. The industry with highest average weekly hours in 1936 was the cottonseed oil, cake, and meal industry, in which hours were 49.1 per week.

Among the 14 nonmanufacturing industries previously mentioned (see note 2), average weekly hours were less than 40 only in anthracite mining, bituminous-coal mining, crude-petroleum producing, and the telephone and telegraph industry. Among these industries, the longest weekly hours were in year-round hotels (48.3) and in electric-railroad and motorbus operation and maintenance (46.5).

In the manufacturing industries reporting to the Bureau of Labor Statistics, 44 percent of the employees in 1936 were in industries with average weekly hours above 40. In the 14 nonmanufacturing industries, 88 percent of the employees in 1936 were in industries with average weekly hours above 40. In manufacturing and the 14 nonmanufacturing industries combined, 69 percent of the employees were in industries with average weekly hours above 40.

In connection with the question of the 40-hour week, it is important to note that the term "40-hour week" is used to indicate, not average hours per week, but normally scheduled hours of shifts or of plant operation. When average hours worked are 40 per week, for example, scheduled hours are likely to be considerably longer than 40 per week, due to the fact that average hours worked per week are affected by such factors as labor turn-over, illness, vacations, and plant shut-downs.

On the basis of information reported to the Bureau of Labor Statistics, average hours per week in manufacturing industries were 37.9 in 1932 and 39.1 in 1936 (table 3). In the 13 nonmanufacturing industries reporting to the Bureau of Labor Statistics, and steam railroads reporting to the Interstate Commerce Commission, average weekly hours in 1932 ranged from 27.2 in bituminous-coal mining to 52.2 in year-round hotels. In 1936 hours ranged from 28.9 in bituminous-coal mining to 48.3 in year-round hotels. Average weekly hours in the separate industries, both manufacturing and nonmanufacturing, are affected in varying degrees by such factors as labor turn-over, volume of business activity, and extent of part time and overtime. The figures of changes in average weekly hours, therefore, do not indicate changes in the relative length of the normally scheduled working week in the different industries.

On the basis of information reported to the Bureau of Labor Statistics, average hourly earnings in manufacturing industries in 1932 were 46.5 cents, and in 1936, 57.5 cents (table 3). In the 7 manufacturing industries with lowest average hourly earnings in 1936, earnings ranged from 22.0 cents per hour in the cottonseed oil, cake, and meal industry to 42.6 cents in silk and rayon. In the 7 industries with highest average hourly earnings in 1936, earnings per hour ranged from 74.2 cents in book and job printing to 92.2 cents

in newspapers and periodicals. While average hourly earnings in the durable-goods industries as a whole were materially higher than in the nondurable-goods industries (62.0 cents in the former and 53.1 cents in the latter), 5 of the 7 industries with highest average hourly earnings in 1936 were nondurable goods industries. On the other hand, none of the 7 industries with lowest average hourly earnings were durable-goods industries.

TABLE 3.—*Average Weekly Hours and Average Hourly Earnings in Selected Industries, 1932 and 1936*

Industry	Average hourly earnings		Average weekly hours	
	1932	1936	1932	1936
Manufacturing industries:				
All industries combined	46.5	57.5	37.9	39.1
Durable-goods industries	----------	62.0	----------	40.6
Nondurable-goods industries	----------	53.1	----------	37.7
Industries with lowest hourly earnings in 1936:				
Cottonseed—oil, cake, and meal	----------	22.0	----------	49.1
Fertilizers	30.8	35.9	42.3	39.5
Cotton goods	23.9	36.8	44.5	37.5
Shirts and collars	----------	37.3	----------	35.3
Canning and preserving	----------	39.3	----------	36.5
Cigars and cigarettes	31.7	40.5	39.2	35.7
Silk and rayon	34.3	42.6	38.7	36.2
Industries with highest hourly earnings in 1936:				
Newspapers and periodicals	77.6	92.2	42.6	37.0
Rubber tires and inner tubes	62.5	87.3	32.5	35.4
Petroleum refining	63.2	82.7	41.8	35.8
Beverages	----------	78.4	----------	40.5
Automobiles	68.0	77.0	31.3	38.5
Shipbuilding	----------	76.2	----------	35.7
Printing and publishing, book and job	----------	74.2	----------	38.6
Nonmanufacturing industries:				
Anthracite mining	82.3	83.3	30.5	30.8
Bituminous-coal mining	52.0	79.4	27.2	28.9
Metalliferous mining	49.7	59.8	37.7	41.9
Quarrying and nonmetallic mining	44.3	47.5	37.0	41.4
Crude-petroleum producing	59.1	76.7	49.0	38.4
Telephone and telegraph	69.7	78.1	40.0	38.9
Electric light and power and manufactured gas	67.7	78.8	44.4	40.2
Electric-railroad and motorbus operation and maintenance	58.9	63.9	47.3	46.5
Wholesale trade	56.9	66.7	47.3	42.6
Retail trade	48.3	52.2	46.3	43.5
Hotels (year-round) [1]	26.3	28.7	52.2	48.3
Laundries	36.5	37.4	43.3	42.5
Dyeing and cleaning	40.9	44.2	45.7	42.8
Steam railroads, class I	60.6	66.1	[2] 39.5	42.9

[1] Earnings include cash payments only; the additional value of board, room, and tips cannot be estimated.

[2] See table 12, note on class I steam railroads.

In the 14 nonmanufacturing industries (table 3), average hourly earnings in year-round hotels were only 26.3 cents in 1932 and 28.7 cents in 1936. Hotels, however, are not on a wholly comparable basis with the other industries, because cash payments only are included. When hotels are excluded from the nonmanufacturing industries, average hourly earnings in 1932 ranged from 36.5 cents in laundries to 82.3 cents in anthracite mining. These two industries are also exceptional in respect to the comparatively small gains made between 1932 and 1936 in average hourly earnings.

In 9 of the 14 nonmanufacturing industries, average hourly earnings in 1936 were higher than in manufacturing as a whole. In some of the nonmanufacturing industries, however, salaried employees as well as wage earners are included. In only 2 of the 14 nonmanufacturing industries did the increase in average hourly earnings between 1932 and 1936 equal the increase in manufacturing as a whole. These were bituminous-coal mining and crude-petroleum producing, both of which are basic industries closely related to manufacturing. There were increases in average hourly earnings in all industries but the adjustments were far from uniform and were slight in many of the lowest-paid industries.

There was a wide variation both in average weekly hours and in average hourly earnings within each industry, both regional and by establishments. It is extremely important, in the consideration of public and private policies relating to wages and hours, to note these differences as well as the variations of industry averages. There are indeed few industries that do not have submarginal fringes which create problems of a serious nature.[5]

The figures of average hourly earnings afford the best available information regarding the general movements of wage rates, but are inadequate as a measure of these movements because changes in the proportions of workers at given wage levels affect the averages. The general average during the depression was reduced by the curtailment of employment in the higher-paid durable-goods and capital-goods industries and was raised after 1932 by the relatively large increases in employment in these industries. In the automobile industry, for example (table 12), average hourly earnings in 1932 were 68.0 cents as compared with an average of 46.5 cents for manufacturing as a whole, and were 77.0 cents in 1936 as compared with 57.5 cents for manufacturing as a whole. Employment in 1932 in the automobile industry had declined much more seriously than in manufacturing as a whole; but from 1932 to 1936 the number of automobile workers increased 88.6 percent as compared with only 40.3 percent in manufacturing as a whole. Thus, the increase in average hourly earnings after 1932 was in part a result of higher wage rates and in part a result of an increase in the proportion of workers in the industries paying relatively high wages.

In certain occupations and industries, it is possible to trace the course of average wage rates as distinguished from average hourly earnings. In this connection, it is perhaps sufficient to state the general results of annual surveys by the Bureau of Labor Statistics of average hourly entrance wage rates in July for common adult male

[5] See Hours and Earnings Before and After the N. R. A., in Monthly Labor Review, January 1937 (pp. 13-36); Hourly Earnings in Manufacturing, 1933 to 1936, in Monthly Labor Review, April 1937 (pp. 828-858); and The Extent of Low Wages and Long Hours in the Railroad Industry, published by the Federal Coordinator of Transportation.

labor in selected industries (table 4). The industries covered [6] have relatively high wage rates, but are significant as illustrating the trend of earnings of common labor over a comparatively long period. In four of the nine industries, average entrance rates were higher in 1929 than in 1926, and in five, lower. Without exception, there were extensive reductions from 1929 to 1932. The decreases ranged from 7.9 percent in the petroleum-refining industry to 32.8 percent in sawmills. Rates were higher in 1936 than in 1929 in seven of the nine industries, lower in one industry, and unchanged in one. From 1932 to 1936, there were increases in all of the industries, the advances ranging from 16 percent in paper and pulp to 76.7 percent in sawmills. Between 1935 and 1936 there was comparatively little change.

TABLE 4.—*Average Hourly Entrance Wage Rates for Common Adult Male Labor in Selected Industries, July 1926, 1929, 1932, 1935, and 1936* [1]

Industry	Average hourly entrance rates (in cents) in July					Index numbers (July 1932=100)				
	1926	1929	1932	1935	1936	1926	1929	1932	1935	1936
Brick, tile, and terra cotta	40.7	37.8	28.9	38.2	37.9	140.8	130.8	100.0	132.2	131.1
Cement	40.1	37.8	30.6	44.3	44.0	131.0	123.5	100.0	144.8	143.8
Foundry and machine-shop products	37.1	39.8	34.8	40.0	42.5	106.6	114.4	100.0	114.9	122.1
Iron and steel	42.7	42.5	31.8	44.1	45.1	134.3	133.6	100.0	138.7	141.8
Leather	40.9	42.2	32.9	41.9	42.2	124.3	128.3	100.0	127.4	128.3
Lumber (sawmills)	33.6	32.0	21.5	35.6	38.0	156.3	148.8	100.0	165.6	176.7
Paper and pulp	42.8	44.0	35.6	41.1	41.3	120.2	123.6	100.0	115.4	116.0
Petroleum refining	47.9	45.7	42.1	52.2	52.5	113.8	108.6	100.0	124.0	124.7
Slaughtering and meat packing	41.5	42.0	34.6	45.7	45.6	119.9	121.4	100.0	132.1	131.8

[1] See Monthly Labor Review, December 1934, March 1936, April 1937.

Production

Basic changes in the volume of goods and services on which employment and the national standard of living depend are measured approximately by indexes of production and business activity. In many industries and employments, especially trade, finance, and the personal and professional services, production cannot be expressed in units or in index numbers that make possible a comparison with changes in employment. It is known, however, that in many of the service industries there is a comparatively small decline in employment when the volume of business decreases and that employment expands at a comparatively slow rate when business activity increases. A department store, for example, must maintain a substantial sales, custodial, and delivery force whether business is brisk or slack; while a factory can more readily curtail its operating force or close down entirely. Most of the service industries, however, are somewhat less subject to fluctuations in demand than are manufacturing establishments.

[6] Brick, tile and terra cotta, cement, foundry and machine-shop products, iron and steel, leather, sawmills, paper and pulp, petroleum refining, and slaughtering and meat packing.

The service industries exhibit a wider range of technological and managerial changes than manufacturing and mining. Such changes are relatively insignificant in the professional services, for example, although even these are affected vitally by improvements in office equipment, laboratory facilities, etc. Domestic and custodial services are affected by improvements applying directly to such services but perhaps more vitally by the transfer of domestic work to laundries, restaurants, food factories, wearing-apparel factories, repair shops, etc. In the transportation and communications industries, the effects of technological changes have been more extensive than in manufacturing and mining as a whole.[7]

TABLE 5.—*Indexes of Production and Business Activity in Selected Industries, 1926, 1929, 1932, and 1936*

Industry group	Index numbers							
	1929=100				1932=100			
	1926	1929	1932	1936	1926	1929	1932	1936
Manufactures [1]	91	100	53	88	171	189	100	167
Minerals [1]	94	100	62	90	152	162	100	146
Manufactures and minerals [1]	91	100	54	88	169	186	100	164
Agriculture [2]	101	100	99	94	102	101	100	95
Steam railroads (class I):								
Freight-car loadings [3]	100	100	53	68	189	189	100	129
Revenue ton-miles [3]	99	100	52	76	190	191	100	145
Revenue passenger-miles [3]	114	100	55	72	209	183	100	132
Revenue traffic units [3]	101	100	53	75	193	190	100	143
Domestic demand for motor fuels [4]	70	100	99	128	71	101	100	129
Electric-power production [5]	76	100	85	117	89	117	100	136
Construction contracts awarded (value): [1]								
Residential	139	100	15	43	931	669	100	285
All other	95	100	28	49	338	355	100	175
Department-store sales (value) [1]	95	100	62	79	154	161	100	128
Retail trade, all types (value) [6]	------	100	52	77	------	192	100	148
Wholesale trade (physical volume) [7]	91	100	62	[8] 79	145	160	100	[8] 127

[1] Federal Reserve indexes.
[2] U. S. Department of Agriculture. Bureau of Agricultural Economics.
[3] Based on reports to the Interstate Commerce Commission. Revenue traffic units are revenue ton-miles plus weighted revenue passenger-miles.
[4] U. S. Bureau of Mines. Demand for motor fuels is a rough measure of motor traffic in contrast with railroad transportation.
[5] U. S. Department of Commerce. Survey of Current Business, 1936 Supplement (p. 85), and February 1937 (p. 41). Data compiled by Department of Interior and Federal Power Commission.
[6] Idem. Domestic Commerce, Feb. 28, 1937 (pp. 113–116).
[7] Idem. Survey of Current Business, May 1936 (p 18).
[8] 1935.

In some industries the products are measurable in definite units of output, as tons of pig iron and steel ingots, barrels of cement, pairs of shoes, ton-miles or passenger-miles of revenue traffic, etc. By means of weights indicating approximately the comparative importance of different units and industries, indexes of production embodying a variety of units of output may be constructed. These indexes are not precise measurements but mere approximations of rates of change. In many industries and groups of industries, indexes of production and roughly comparable indexes of employment are available. There are other measures of production and business activity which are significant as indications of rates of change but which are not com-

[7] See the estimates of changes in labor productivity in table 6.

parable with any available employment figures. Among these are agricultural production, electric-power production, the value of construction contracts awarded, retail trade, and wholesale trade. (See tables 5 and 12.)

The seriously unbalanced condition of production and business activity during the decade from 1926 to 1936 is apparent from a comparison of some of the principal indexes. Construction as measured by the value of contracts awarded was already declining in 1929. Residential construction contracts awarded in 1929 were 28 percent smaller than in 1926. The peak of the construction boom was in 1928, and there was therefore a greater divergence between the figures for 1928 and 1929 than between those for 1926 and 1929. The index numbers of construction are derived from figures of values of contracts awarded without adjustment to price changes. They nevertheless indicate a significant decline between 1928 and 1929, an extreme decline from 1929 to 1932, and a comparatively slight recovery from 1932 to 1936. The index numbers for 1936 show large increases over 1932, to be sure, but the figures for 1932 were exceptionally low and the value of contracts in 1936 was far below the value in 1929.

Railroad transportation showed a material decline between 1926 and 1929 in revenue passenger traffic and a slight decline in revenue traffic units (a weighted figure for passenger and freight traffic combined). The volume of railroad business as measured by revenue traffic units in 1932 was only a little more than half of the volume of 1929, and in 1936 was three-fourths of the volume of 1929. Thus in 1936 in railroad transportation the extent of return to the 1929 volume of business was greater than in construction but less than in manufacturing and minerals. The index of freight-car loadings is not so sensitive to change in the aggregate volume of railroad business as is the index of revenue traffic but is quickly available on a weekly basis. There is no adequate measure of changes in the volume of transportation by other transportation agencies, but it is an obvious fact that motor vehicles have gained rapidly in both passenger and freight traffic. A rough measure of motor traffic in contrast with railroad transportation is the domestic demand for motor fuels. The available figures, compiled by the Bureau of Mines, include fuel for tractors as well as airplanes and automobiles, but represent predominantly the fuel used for automobiles; and much of the fuel is used by individuals who own their cars and operate them in part for pleasure. The figures of demand for motor fuels are not therefore an indication of direct employment and compensation in the motor-transport industries. It is true, however, that the inclusion of employment and compensation in these industries would give to employment and compensation in transportation as a whole trends different from those in railroad transportation alone.

The index number of electric-power production for 1936 shows a significant increase of 17 percent over that for 1929. Electric-power production in relation to employment and earnings must be viewed in the light of two important considerations. In the first place, power production directly employs comparatively few workers, although new power projects have afforded employment for limited periods to considerable numbers. In the second place, a comparatively large increase in the commercial use of electric energy after 1932 indicates an extension of improved technology with an increase in labor productivity.

Index numbers for wholesale trade are derived from estimates of the physical volume of goods marketed at wholesale. The goods included are the domestic products of manufacturing, agriculture, mines and quarries, oil wells, forests, and fisheries, and to these are added imports. The aggregate value is adjusted to wholesale-price changes. The latest figure available is for 1935. For that year, the index was 79 percent of 1929, and the index of production of manufactures and minerals was 76. On the 1932 base, the index of wholesale trade for 1935 was 127 as compared with an index of 141 for the production of manufactures and minerals. The wholesale-trade index shows a smaller decline from 1929 to 1932 than the index of manufactures and minerals, largely because it included agricultural products the volume of which remained almost constant. The wholesale-trade index showed a smaller increase between 1932 and 1935 because of a slight decline in agricultural production while industrial production was rising sharply.

The index numbers of department-store sales and of total retail trade (table 5), like those of construction contracts awarded, are derived from dollar values not adjusted to price changes. The value of department-store sales increased 5 percent between 1926 and 1929; between 1929 and 1932, the value of sales fell off 38 percent; and in 1936 the index was still 21 percent below 1929. The aggregate value for all retail trade declined 48 percent between 1929 and 1932, and in 1936 was 23 percent smaller than in 1929.

Department-store sales declined less sharply from 1929 to 1932 than total retail sales but expanded less rapidly between 1932 and 1936. These differences between the trends of the aggregate value of retail sales and the value of department-store sales are largely due to the extremely sharp decline in the buying power of farmers between 1929 and 1932 and the comparatively rapid restoration of farm income after 1932. Sales in farmers' supply stores and country general stores in 1932 were only one-third of the sales in 1929. Catalog mail-order sales in 1932 were only 45 percent of 1929 sales. Farmers' supply stores and country general stores increased the value of their sales 55 percent between 1932 and 1936. During the same period, catalog mail-order sales increased 129 percent.

There is no index of prices adequate for an adjustment of retail sales to price changes, but the more important types of commodities consumed by the wage-earning classes are included in the Bureau of Labor Statistics cost-of-living index. By omitting rent and miscellaneous items (composed mainly of services and transportation) from the cost-of-living index and by using this modified cost-of-living index for adjusting the index of total retail sales, it is possible to obtain a rough approximation of the trend of retail trade in volume as distinguished from value. This adjustment shows retail sales in 1936 only 6 percent below 1929, and even in 1932 only 28 percent below 1929. Thus, the index of volume of retail sales in 1932 was materially higher than the index of volume of production in manufactures. This is to be explained in part by the fact that the index of production of manufactures includes capital goods, the output of which fell to a much lower level than the output of consumption goods.[8]

Labor Productivity and Labor Cost

Average man-hour output is affected by changes in the efficiency of the productive process as a whole, and also by changes in volume of production even when there are no changes in the technical efficiency of the productive process. The interpretation and use of figures of labor productivity must take into account the limitations inherent in the statistics of employment, man-hours, and production used for constructing productivity indexes. Figures of production in most of the industries are obtained from reports from establishments in industries that are not wholly identical with those from which employment statistics are obtained. The figures of average weekly hours are secured from only a part of the establishments and industries which report the number of employees.[9] Substantially the same limitations that apply to indexes of labor productivity apply to indexes of labor cost per unit of output.[10]

[8] The decline in the physical volume of consumers' goods between 1929 and 1932 has been estimated at 29 percent, as compared with the above estimate of a 28-percent decline in the physical volume of retail trade. See Indexes of the Physical Volume of Production of Producers' Goods, Consumers' Goods, Durable Goods, and Transient Goods, by Y. S. Leong, in Journal of the American Statistical Association, June 1935 (pp. 361–376).

[9] The Federal Reserve Board's indexes of production make predominant use of figures of production in the industries that carry on the early stages of production, such as cotton spinning, smelting, and steel making, these being viewed as representing later stages of fabrication. The various industries are combined in the index by weights derived from value added in the process of manufacture and from value of product in the minerals industries. The indexes of production and of man-hours are not exactly comparable, especially on a monthly basis, for the additional reason that output reported in a given month may involve labor expended in an earlier month, as in the retooling in automobile plants. Still another difference in the indexes is the fact that the production index covers the output for the month, while the report from which the employment index is derived covers only the week ending nearest the middle of the month. This fact is particularly significant in connection with the December indexes, when there is frequently a curtailment of employment and production toward the end of the month. Possibilities are being explored of compiling production and employment statistics on a more accurately comparable basis.

[10] The labor-cost index is derived by dividing the index of pay rolls by the index of production. The index of productivity is derived by dividing the index of production by the index of man-hours (in the case of output per worker, by the index of number of workers).

The indexes of labor productivity and labor cost per unit of output must be interpreted in the light of these qualifications and must be regarded as rough approximations. It is necessary also to interpret these indexes in the light of changes in production, employment, man-hours, average weekly hours, average hourly earnings, and pay rolls. (See tables 2 and 12.) The divergence between man-hour output and output per employee, for example, in manufacturing industries in 1936 as compared with 1932 (table 6) is explained by the increase in average weekly hours. Changes in labor cost per unit of output are explained in part by changes in wage rates and in part by changes in labor productivity. The significance of a rise or fall in labor cost per unit of output is affected by comparative changes in the prices of materials used and goods sold.

TABLE 6.—*Labor Productivity and Labor Cost in Selected Industries, 1926, 1929, 1932, 1936* [1]

[1932=100]

Industry	Output per man-hour		Output per employee				Labor cost per unit of output			
	1932	1936	1926	1929	1932	1936	1926	1929	1932	1936
All manufacturing industries	100	115	111	118	100	119	131	124	100	106
Blast furnaces, steel works, and rolling mills	100	131	209	235	100	205	103	95	100	95
Automobiles	100	138	178	210	100	170	87	75	100	82
Cement	100	121	97	114	100	117	157	139	100	118
Cotton goods	100	121	89	98	100	102	166	146	100	130
Woolen and worsted goods	100	140	88	102	100	119	164	136	100	96
Leather	100	107	100	103	100	100	131	125	100	125
Flour	100	100	84	97	100	92	142	128	100	118
Slaughtering and meat packing	100	103	89	88	100	93	145	146	100	125
Cigars and cigarettes	100	158	73	91	100	144	196	148	100	77
Petroleum refining	100	127	81	95	100	108	142	123	100	99
Rubber tires and inner tubes	100	116	70	85	100	126	210	176	100	120
Anthracite mining	100	131	------	92	100	133	------	127	100	77
Bituminous-coal mining	100	113	------	117	100	120	------	162	100	141
Crude-petroleum producing	100	135	------	71	100	105	------	177	100	96
Class I steam railroads [3]	100	127	111	117	100	139	104	102	100	86
Telephone industry [3]	------	------	[4] 85	83	100	109	[4] 111	116	100	104

[1] See comment on limitations of estimates of labor productivity and labor cost in text.

[2] All employees included except the principal salaried groups. See note to table 12, last section.

[3] Telephone companies reporting to the Interstate Commerce Commission (in 1936, to the Federal Communications Commission). Before 1936, compensation is computed from census data and reports to the Bureau of Labor Statistics by multiplying the number of employees in companies reporting to the Interstate Commerce Commission by per-capita compensation derived from census data and reports to the Bureau of Labor Statistics. Salaried employees and salaries are included.

[4] 1927.

The complex nature of the factors affecting labor productivity is illustrated by coal mining. During the decade preceding the depression and the early years of depression, mechanization and labor productivity in bituminous-coal mining increased rapidly. This process was facilitated by the competitive elimination of many high-cost mines. After 1932 the greatly increased demand for coal, combined with agreements regarding markets and operating conditions, tended to make possible the operation of many comparatively unproductive mines. In the anthracite industry, on the other hand, production in mines operating regularly and reporting their production was much

smaller than in 1929 and not greatly in excess of 1932. Severe competition from other fuels tended to force out of regular production many high-cost mines and to put a premium on mechanization, strip mining, and other methods of reducing labor cost. These are some of the circumstances which explain the difference in man-hour output in the two types of coal mining.

Changes in volume of production are more likely to affect man-hour output in the service industries, where facilities must be maintained regularly for rendering service, than in manufacturing. But in many manufacturing industries, volume of production is an important factor. In blast furnaces, steel works, and rolling mills, for example, the extremely small volume of production in 1932 (less than one-fourth of the production of 1929) greatly reduced the economies of plant operation and increased the percentage of overhead and indirect labor. A special study by the Bureau of Labor Statistics indicated that the amount of manufacturing labor required per ton of steel ranged from 46.48 man-hours when plants were operating at 20 to 25 percent of capacity to 34.43 man-hours at 55 to 60 percent of capacity. In the case of administrative labor the number of man-hours required per ton ranged from 3.26 to 1.32.[11]

Changes in the volume of production affect man-hour output, but when production remains substantially constant or declines, the principal cause of increased productivity is improved technology, broadly defined to include many nonmechanical factors. Production in 1926 was in general greater than in 1936. Information regarding average weekly hours is much more limited for 1926 than for 1936, but it is known that in most industries, hours were materially longer in 1926. And yet average output per worker in 1936 was substantially greater, with few exceptions, than in 1926, and in most industries very much greater. In manufacturing as a whole and in the separate industries in which both output and man-hours are available (table 6) estimated man-hour output in 1936 was greater than in 1932 in all except one case, where there was no change. Man-hour output in all manufacturing industries combined was 15 percent greater in 1936 than in 1932. The increases in the nonmanufacturing industries (table 6) between 1932 and 1936 were as follows: Anthracite mining, 31 percent; bituminous-coal mining, 13 percent; crude-petroleum producing, 35 percent; and class I steam railroads, 27 percent.

In half of the 16 industries in table 6, estimated labor cost per unit of output was less in 1936 than in 1932. The extreme changes in wages, in volume of production, and in labor productivity between 1929 and 1936 account for radical readjustments in relative unit labor costs in the various industries, with extensive increases in many industries after 1932. As compared with 1929, estimated unit labor

[11] Man-Hours of Labor per Unit of Output in Steel Manufacture, by Bernard H. Topkis and H. O. Rogers, in Monthly Labor Review, May 1935 (p. 1155).

cost in 1936 was less in manufacturing as a whole and in 13 of the 16 industries. In two of the remaining industries, the index numbers are the same for the 2 years.

It is important to observe that the figures of labor productivity are derived from physical units of production, as automobiles, or from units of service, not perfectly uniform or constant in nature. These units, therefore, do not adequately represent changes in quality. In many industries, there was a progressive improvement in quality, which, if it could be taken into account, would substantially raise the indexes of labor productivity.

Increased labor productivity growing out of technological progress affords opportunity for increased production, lower costs, and a higher level of national well-being. But increased productivity per worker requires a proportionate increase in total production if there is to be no decrease in employment. It is of course not desirable that there should be an increase in production equal to the increase in output per worker in every industry, but the aggregate volume of production, including service industries, must increase at the same rate as the general rate of output per worker if employment is not to decrease. Furthermore, an increase of production no greater than the increase in output per worker makes no provision for the growth of the working population.

Economic Significance of the Growth of Population

Unless total production increases as rapidly as population, there is obviously a decrease of per-capita production. If there is not to be a decline in the proportion of the population at work, total production must increase as rapidly as that portion of the population which is of working age and is normally attached to gainful occupations, even when there is no increase in average output per worker. If the standard of living of wage earners as affected by wages is not to decline, total real wages (money wages adjusted to price changes) must increase as rapidly as that portion of the population which is normally dependent on wage-earning employment. Recent changes in age distributions increased the proportion of the population in the working-age groups. A raising of the working age (by child-labor legislation, for example) or a lowering of the retirement age by old-age pensions, etc., would tend to counteract the increase of the percentages of the population in the working-age groups. The ratio of the wage-earning population to total population is also affected by the changing proportion of the population that is self-employed as compared with those who depend on employment by others, and the changing proportion of those who are able to depend on their savings or on the earnings of others without gainful employment of their own.

Most of these factors are not readily subject to statistical analysis. Even the estimates of intercensal changes in total population are subject to errors due to imperfect knowledge of birth rates, death rates, and the net effect of immigration and emigration, but the changes in the total population are known within a small margin of error. There was an estimated increase of 5.7 percent in total population from July 1929 to July 1936 and of 2.8 percent from July 1932 to July 1936 (table 7).

TABLE 7.—*Estimated Changes in Population of the United States, July 1929 to July 1936*[1]

July—	Estimated population (thousands)	Index numbers	
		July 1929=100	July 1932=100
1929	121,527	100.0	97.2
1930 [2]	123,091	101.3	98.5
1931	124,113	102.1	99.3
1932	124,974	102.8	100.0
1933	125,770	103.5	100.6
1934	126,626	104.2	101.3
1935	127,521	104.9	102.0
1936	128,429	105.7	102.8

[1] Derived from U. S. Bureau of the Census, Press Release, Jan. 21, 1937.

[2] Census number Apr. 1, 1930, 122,775,046.

Population may be significantly compared with agricultural production, industrial production (manufactures and minerals), and industrial employment and pay rolls (employment and pay rolls in the manufacturing and minerals industries combined). (See table 8.) Agricultural production in 1936 was only 6 percent less than in 1929, but when the growth of population is taken into account, per-capita production in agriculture declined 11 percent. Production of manufactures and minerals combined was 12 percent smaller in 1936 than in 1929, but per-capita production was 17 percent less than in 1929.

For each 100 persons employed in the manufacturing and minerals industries combined in 1929, 86 were employed in 1936—a decline of 14 percent. But if these industries in 1936 had employed the same proportion of the total population as in 1929, for each 100 persons employed in 1929, the number in 1936 would have been 106 as compared with the 86 actually employed, or an additional 23 percent. Even this increase in employment would have been accompanied by a similar increase in unemployment proportionate to the growth of population. In terms of pay rolls adjusted to the cost of living, for each $100 received by workers in these industries in 1929, $90 were received in 1936. But on the assumption that the aggregate purchasing power of pay rolls in these industries increased as rapidly as the total population, $106 in terms of purchasing power would have been required for each $100 received in 1929. In terms of 1936 dollars not adjusted to the cost of living, $87 would have been re-

quired to maintain purchasing power at the 1929 level instead of the $74 actually received, or an additional 18 percent.

TABLE 8.—*Population, Agricultural and Industrial Production, and Industrial Employment and Pay Rolls, 1929, 1932, and 1936*

Year	Index numbers of—						Indexed ratios of—			
	Population July 1[1]	Agricultural production[2]	Industrial production (manufactures and minerals)[3]	Manufactures and minerals[4]			Agricultural production to population	Industrial production to population	Industrial employment to population	Industrial pay rolls (adjusted to cost of living) to population
				Employment	Pay rolls					
					Not adjusted to cost of living	Adjusted to cost of living				
1929	100.0	100	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1932	102.8	99	54	62.3	42.1	52.5	96.3	52.5	60.6	51.1
1936	105.7	94	88	85.9	73.7	89.8	88.9	83.3	81.3	85.0

[1] Based on estimates by Bureau of the Census.
[2] U. S. Department of Agriculture. Bureau of Agricultural Economics.
[3] Federal Reserve index.
[4] Changes in employment and pay rolls may also be compared with changes in the number of "gainful workers"; that is, the number of persons of working age, employed and unemployed, classified by the Bureau of the Census as normally having "gainful occupations." Because of changes in age distributions and other factors, the number of "gainful workers" increased more rapidly than the total population. Estimates by the Brookings Institution (The Recovery Problem in the United States, p. 604), derived from figures published by the National Resources Board (Estimates of Future Population by States), indicate an increase of 8.9 percent in "gainful workers" from July 1929 to July 1936 as compared with an increase of 5.7 percent in the total population.

These estimates apply only to the manufacturing and minerals industries, and it is conceivable that in other fields a larger proportion of employment and business enterprise was needed in 1936 than in 1929. In certain branches of manufacturing and mining, production may have been excessive or out of equilibrium with production in other branches. But in the aggregate, production in these industries in 1929 was not in excess of the requirements even of a moderate general standard of living.

The output of some industries encounters a comparatively inelastic demand or even a decline in demand due either to the basic character of the product, as boots and shoes, or to the choice by consumers of alternative products, as railroad transportation. Such industries are likely to be affected by important technological improvements which greatly increase the output per worker even when hours of work are being reduced. Output per worker in both of the industries mentioned was much larger in 1936 than in 1929. It is not to be expected that the volume of production in such industries will increase enough to bring about an increase in employment equal to the increase in population or even sufficient to maintain a constant level of employment. It is apparent, however, that if there is not to be an increase in unemployment, other industries must expand their volume of production enough to give employment to the workers who are not needed in the industries that are confronted by a comparatively inelastic demand for their products, and also to absorb the growth of the working population.

The products of some industries are of such nature as to make impossible a numerical estimate of the aggregate volume of production, but statistics of production and of employment are available in roughly comparable forms for all manufacturing industries combined, for manufactures and minerals combined, and for a great variety of individual manufacturing and nonmanufacturing industries. These separate industries include blast furnaces, steel works and rolling mills, automobiles, cement, cotton goods, woolen and worsted goods, boots and shoes, leather, flour, slaughtering and meat packing, cigars and cigarettes, petroleum refining, rubber tires and inner tubes, anthracite mining, bituminous-coal mining, crude-petroleum producing, the telephone industry, and class I steam railroads. It is possible to estimate the amount of production that would have resulted from the employment in 1936 of the same proportion of the population as in 1929, at the 1936 rate of output per worker. In one of the industries mentioned above, namely, leather, production would have been only a fraction of 1 percent greater. But in all of the other industries mentioned, the amount produced would have been substantially larger, ranging from 3 percent in automobiles to 104 percent in anthracite mining. Production in all manufacturing industries combined would have been 20 percent larger; and in manufactures and minerals combined, 23 percent greater. In the separate nonmanufacturing industries mentioned above, the employment of the same proportions of the population as in 1929, at the 1936 rates of output per worker, would have resulted without exception in greatly increased total output. In railroad transportation, total output would have been 66 percent greater; in the telephone industry, 53 percent; in anthracite mining, 104 percent; in bituminous-coal mining, 34 percent; and in crude-petroleum producing, 45 percent.[12]

As was previously stated, a progressive and desirable alteration of the economic structure calls for important shifts of investment and employment from industry to industry and for a relatively slow growth or even a decline in some industries. But the industries for which these estimates were made include a wide and representative variety of business enterprises, and it is a striking and significant fact that in none of them was the actual production equal to the production which would have resulted from the employment of the same proportion of the population as in 1929.

These estimates assume that the 1936 output per worker would have remained unchanged under the stated conditions of larger volumes of production. When there is an increase in production that is not too abrupt, readily available technological improvements, combined with opportunity for increased profits, tend to raise the general level of

[12] If adequate estimates for other nonmanufacturing industries could be made, many of these would undoubtedly show much less marked disparities between actual and assumed volumes of production or business activity.

efficiency. Increased employment calls for new workers often relatively unskilled or inefficient; but skill and efficiency depend largely on experience in suitable employments, and any reduction of average output from this cause is likely to be temporary, especially if readily available measures are adopted for the training, retraining, and transfer of workers. In many industries, an increase in production automatically increases average output by reducing the proportions of overhead and indirect labor. When production rises from comparatively low levels, there is a reduction of part time and an increase in overtime, with a resulting increase in average output per worker even when scheduled hours are unchanged. When production increases there is also a tendency toward increased average output by the transfer of labor from relatively unproductive occupations, such as emergency work, peddling, and subsistence farming, to regular employment in factories and service industries.

The Role of Capital Goods in Employment

Changes in the amount of current income or of credit used for the production of capital goods have long been recognized as having a vital bearing on fluctuations in the amount of employment. The problem rarely became acute, however, until recent years because of the rapid and almost continuous expansion of demand for capital goods in unindustrialized areas. Certain durable-goods industries of an intermediate character, notably automobiles and building construction, should be classed, as to their effects on fluctuations in employment, with the capital-goods industries. When there is an actual or anticipated increase in demand for goods or services by consumers, there may be a rise in prices, but in general, when there is no deficiency of capital or credit and of labor and basic materials, the actual or anticipated opportunity for profits due to increased demand brings additional producers into the field. These producers require capital goods and the resulting demand gives employment to both capital and labor for building factories, making machine tools, constructing power plants, etc. This in turn gives additional purchasing power to those engaged in the expanding capital-goods industries, thereby increasing employment and production in the consumption-goods industries, and the spiral is again expanded.

Conditions after the World War promoted an abnormal expansion of the capital-goods industries. The deferred replacement of housing facilities, combined with the rapid growth of population in the cities and suburbs, caused a great expansion of building activities, especially in the residential field. New industries, notably those connected with motor transportation, not only called for a very large expansion of productive facilities in these industries but indirectly stimulated development of housing and service facilities of various kinds. The

automobile promoted the abandonment of residences in cities and the construction of suburban residences; caused a great expansion of road construction; and stimulated the sporting-goods industries, the development of vacation centers, etc. During the upturn of the capital-goods industries, the increased employment and business activity connected with these industries greatly stimulated the consumption-goods industries. But when the peak of capital-goods expansion was reached, the country was equipped with efficient facilities for production requiring less labor per unit of output; the limitation of the market for new capital goods left the capital-goods industries mainly dependent on the replacement market; and capital and labor employed in the capital-goods industries encountered a decreasing demand. The consumption-goods industries were in turn adversely affected by the declining purchasing power of those engaged in the capital-goods industries, and the earlier spiral of expansion became a progressively contracting spiral.

The problem of maintaining an adequately balanced proportion of productive resources in each of the two types of enterprise and of preventing a curtailment of the employment of capital and of labor is complicated by the dependence of producers on uncertain estimates of future demand and on estimates by each producer of the share of future demand he will be able to supply. Price fluctuations also affect aggregate demand and the direction of demand, as well as the validity of the aggregate and individual estimates of businessmen.

When the peak of expansion of capital-goods industries was reached after the World War, the national economy was confronted with a dilemma. There was an exceptionally efficient productive system; workers, comparatively well trained, were calling for employment; and consumers were in need of goods and services and were accustomed to a comparatively high standard of living. At the same time, an increasing proportion of consumers lacked the income necessary to purchase the goods and services to which they had become accustomed and which the productive facilities of the country were capable of creating. A secondary factor of varying importance was the withholding of income from consumption because of lack of confidence in the stability of jobs or other sources of income.

Prices and Economic Adjustment

The traditional conception of the function of prices and costs assumed that the competitive markets would prevent a prolonged or disturbing lack of balance of investment and consumption. A surplus of savings, it was supposed, would reduce interest rates until the surplus was diverted into consumption or, as a result of lower interest rates, used profitably by borrowers. A fall in demand for particular

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goods or services would cause a reduction in prices until the demand rose again or would cause a transfer of investment and labor to the production of other goods and services for which there was a demand such as would make investment and employment profitable. A surplus of labor would cause a fall in wages until the employment of the available supply of labor became profitable. Thus, competitive prices and costs, in free and open markets, were expected to cause a flow of investment and employment into appropriate channels, maintain a balance between different phases of economic activity, and make possible the fullest use of labor and capital.

The recent course of prices and costs impaired confidence in the older conceptions. There were extreme differences of opinion as to the causes and effects of price changes and disparities, but it was agreed that before 1929 price changes failed to reflect adequately the decline in costs of production resulting from technological improvement and the economies of large-scale production. After 1929 the precipitate fall of the general level of wholesale prices (37.3 percent from the 1929 average to February 1933) greatly increased the burdens of debt, especially of long-term debt, put an unbearable strain on many contractual relations, increased the difficulties of foresight and planning, and greatly accelerated the bankruptcy rate. Especially serious were the disparities in the price structure. Instances are farm products, which fell in price 61.0 percent between 1929 and February 1933, and metals and metal products, which fell only 23.5 percent between 1929 and April 1933, the low month for this group. Similar disparities occurred in the items of the cost-of-living index. The general index fell 25.2 percent between 1929 and June 1933; food prices fell 38.2 percent between 1929 and December 1932; fuel and light fell 13.5 percent between 1929 and June 1933; and miscellaneous items (services, transportation, and miscellaneous commodities) fell 6.5 percent between 1929 and June 1933. (See tables 9 and 10.) The range of monthly fluctuations was even more extreme.[13] Changes from 1932 to 1936 also exhibited wide variations, although the particularly grave disparity of farm products and industrial products was substantially corrected.

The significance of wholesale-price changes and changes in the cost-of-living indexes (tables 9 and 10) becomes clearer when comparisons are made with other economic changes, especially in production, finance, and income. (See table 11.) Variations from 1926 to 1929 exhibit a remarkable range, even when only the major aspects of the national economy are considered and even when annual averages rather than monthly figures are compared. The following comparisons include only the years 1926 and 1929 and disregard the even greater

[13] Variations in cost of living are not shown by the indexes as fully as are changes in wholesale prices because of the relatively infrequent surveys of cost of living. During the period of violent price changes from 1931 to 1933, the surveys were made semiannually.

range in some of the items during the intervening years. Production in manufactures increased 10 percent and in the minerals industries 6 percent. Agricultural production declined 1 percent, and the value of residential construction contracts fell off 28 percent. Labor cost per unit of output in manufactures declined 4 percent, total manufacturing pay rolls increased 5 percent, gross farm income increased 5 percent, and department-store sales increased 5 percent. During the same period (1926 to 1929) the loans and investments of all banks increased 13 percent; new capital issues, domestic and foreign, increased 60 percent; new capital issues of domestic corporations increased 113 percent; and stock prices (420 issues) rose 90 percent.

TABLE 9.—*Indexes of Wholesale Prices, 1926, 1929, 1932, 1936, July 1937*

[Average 1926=100]

Year and month	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6
1932	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4
1932: July	64.5	47.9	60.9	68.6	51.5	72.3	79.2	69.7	73.0	74.0	64.3
Low month	[1] 59.8	[1] 40.9	[1] 53.7	[1] 68.0	[1] 51.2	[2] 60.4	[3] 76.9	[4] 69.6	[5] 71.2	[3] 71.5	[3] 57.8
1936	80.8	80.9	82.1	95.4	71.5	76.2	87.0	86.7	80.4	81.7	70.5
1937: July	87.9	89.3	86.2	106.7	78.3	78.1	96.1	96.7	83.9	89.7	79 0

[1] February 1933.
[2] May 1933.
[3] April 1933.
[4] August 1932.
[5] March 1933.

TABLE 10.—*Indexes of the Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in 32 Large Cities Combined, 1926 to 1937*

Year and month [1]	All items	Food [2]	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous
	Average 1926=100						
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	97.0	96.4	95.6	93.8	96.1	94.0	101.9
1932	77.8	62.9	75.4	77.6	88.5	71.9	99.1
1932: June	77.7	62.3	75.8	78.1	86.9	71.3	99.2
Low month	[3] 72.6	[4] 59.6	[3] 70.5	[5] 62.2	[6] 83.1	[4] 68.4	[7] 95.3
1936	79.6	75.7	81.1	63.9	85.6	81.1	95.4
1937: June	82.4	79.5	84.6	67.1	83.1	88.7	96.6
	Average 1932=100						
1926	128.5	159.0	132.5	128.9	113.0	139.1	100.9
1929	124.6	153.3	126.7	120.9	108.5	130.8	102.8
1932	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1932: June	99.8	99.1	100.4	100.7	98.2	99.2	100.1
Low month	[3] 93.3	[4] 94.8	[3] 93.5	[5] 80.2	[6] 93.9	[4] 95.2	[7] 96.2
1936	102.3	120.4	107.5	82.4	96.7	112.8	96.3
1937: June	105.9	126.4	112.2	86.5	93.9	123.4	97.5

[1] Monthly cost-of-living figures are not available.
[2] Covers 51 cities.
[3] June 1933.
[4] December 1932.
[5] March 1935.
[6] June 1933, July 1935, and June 1937.
[7] June 1933 and July 1936.

TABLE 11.—*Percent of Changes in Annual Averages of Selected Economic Indexes from 1926 to 1929, from 1929 to 1932, and from 1932 to 1936*

Item	Percent of change—									
	From 1926 to—			From 1929 to—			From 1932 to—			
	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Production:										
Manufactures [1]	−2	+4	+10	−20	−33	−47	+19	+24	+43	+67
Minerals [1]	−1	−2	+6	−14	−27	−38	+15	+21	+28	+46
Agriculture [2]	−3	+2	−1	0	+6	−1	−3	−6	−8	−5
Labor cost per unit of output in manufactures [3]	0	−5	−4	+2	−8	−20	−11	+9	+7	+7
Pay rolls in manufactures	−2	−1	+5	−19	−38	−57	+6	+36	+54	+78
Gross farm income [4]	0	+2	+5	−18	−42	−56	+18	+43	+57	+79
Department-store sales [1]	+1	+2	+5	−8	−17	−38	−3	+9	+14	+28
Residential construction contracts awarded (value) [1]	−3	+4	−28	−43	−57	−85	−15	−8	+62	+185
Wholesale prices:										
All commodities	−5	−3	−5	−9	−23	−32	+2	+16	+23	+25
Farm products	−1	+6	+5	−16	−38	−54	+7	+35	+63	+68
Textiles	−4	−4	−10	−11	−27	−39	+18	+33	+29	+30
Metals and metal products	−4	−3	+1	−8	−16	−20	0	+8	+8	+8
Cost of living:										
All items	−2	−3	−3	−3	−11	−20	−5	−2	+1	+2
Food	−4	−5	−4	−5	−22	−35	−3	+8	+18	+20
Fuel and light	−2	−3	−4	−1	−3	−8	−3	−2	−3	−3
Miscellaneous [5]	+1	+1	+2	0	0	−3	−3	−3	−3	−4
Loans and investment, all banks, June 30	+4	+11	+13	−1	−6	−21	−13	−8	−4	+5
New capital issues: [1]										
Domestic and foreign	+20	+27	+60	−32	−69	−88	−40	+16	+22	+65
Domestic corporations	+24	+42	+113	−44	−81	−96	−50	−45	+24	+267
Prices of common stocks (420 issues) [1]	+18	+50	+90	−21	−50	−74	+30	+49	+61	+129

[1] Indexes published by Board of Governors of the Federal Reserve System in Federal Reserve Bulletin.
[2] U. S. Department of Agriculture. The Agricultural Situation, Jan. 1, 1937 (p. 3).
[3] Bureau of Labor Statistics index of pay rolls in manufactures divided by Federal Reserve Board index of production in manufactures.
[4] Includes rental and benefit payments and farm value of products retained for consumption. U. S. Department of Agriculture. Monthly Indexes of Nonagricultural and National Income (p. 6).
[5] Services, transportation, miscellaneous commodities.

These latter figures are not given as measures of the diversion of current income or of credit into investment, but only as valid evidence of the seriously unbalanced nature of production, income, investment, and prices before as well as during the depression. Even the abnormal amount of investment in capital goods and durable goods from 1926 to 1929 sufficed, under the prevailing prices and income allocation, to raise the levels of wage-earning and agricultural income and of consumption only at approximately the same rate as the growth of population.

An effective system of competitive prices involves free and open and quickly responsive market control of production costs, including interest rates, rents, profits, and the prices of materials as well as wage rates. It also involves similar adjustments of consumer costs. But consumer costs include services rendered by public utilities, house rents, interest rates on consumer loans, etc., and prices of goods produced by great corporations as well as by farmers and local businessmen. The experience of recent years naturally called attention to the break-down of automatic adjustments and to the factors affecting prices and costs. Another result was a more careful consideration

of the possibilities of utilizing public authority and private association for avoiding violent and disruptive price fluctuations and for maintaining the fullest possible employment of both labor and capital by means of a balanced allocation of income and credit to consumption and to needed investment.

Fluctuations in Selected Industries

During the years 1929 to 1936 the various industries exhibited an unusually wide range of fluctuations in production, employment and pay rolls, hours, earnings, etc. Typical examples have been tabulated for comparison and for ready reference in connection with earlier sections of this article (table 12).[14]

The variability of the separate industries is significantly illustrated by weekly pay rolls. Extreme instances are the machine-tool and telephone and telegraph industries. In machine tools, weekly pay rolls in July 1932 were less than one-eighth of the average for 1929, and in July 1937 were about seven times as large as in July 1932. In the telephone and telegraph industry, pay rolls in July 1932 were about four-fifths of the average for 1929, and in July 1937 were less than 16 percent above July 1932. The figures for the telephone and telegraph industry include salaried workers and would show a greater variability if salaried workers were excluded. In addition, the necessary maintenance of facilities for telephone service requires at least a minimum of employment irrespective of the amount of business. But the main cause of the contrast was the comparative stability of the volume of telephone and telegraph business. The contrast between pay rolls in the machine-tool industries and flour milling illustrates in an extreme form the effects of depression on the durable-goods and capital-goods industries on the one hand and most of the nondurable-goods and consumption-goods industries on the other hand. In flour milling, weekly pay rolls in July 1932 were 36 percent less than in 1929; in the machine-tool industry, 88 percent less; and in all manufacturing, 63 percent less. In flour milling, the increase in weekly pay rolls from July 1932 to July 1937 was 44 percent; in the machine-tool industry, 605 percent; and in all manufacturing, 150 percent.

[14] The separate industries analyzed in the later sections of table 12 were chosen partly for the purpose of illustrating the wide range of types and of rates of change. Both durable-goods and nondurable-goods industries are represented; and, from a slightly different angle, capital-goods industries and consumption-goods industries. The main stages of the productive process are represented, from mining and the processing of raw materials to the making of finished goods, the sale of goods, and the rendering of services to consumers. From the point of view of hours and earnings, industries are included with both high and low earnings and with long and short weekly hours. Some of the industries underwent insignificant reductions of hours and increases of hourly earnings, while others exhibited striking changes either in hours or in earnings, or in both. Table 12 gives actual figures of average weekly hours and average hourly earnings, for comparison of the relative status of industries at a given time as well as of rates of change.

TABLE 12.—*Employment, Hours, Earnings, and Production in Selected Industries,*[1] *1929, 1932, 1936, and July 1932 and 1937*

[Index numbers: Monthly average 1932=100]

Year and month	Index of number of employees	Average weekly hours	Index of weekly pay rolls	Index of per-capita weekly earnings	Average hourly earnings (cents)	Index of total man-hours[2]	Index of production[3]	Index of output		Index of labor cost per unit of output[4]
								Per employee[3]	Per man-hour[3]	
All manufacturing industries										
1929	159.8		235.1	147.1			189	118		124
1932: July	92.2	35.6	86.6	93.9	46.6	86.6	87			
1932	100.0	37.9	100.0	100.0	46.5	100.0	100	100	100	100
1936	140.3	39.1	177.6	126.6	57.5	144.8	167	119	115	106
1937: July	154.8	37.9	216.4	139.8	65.7	154.8	175			
Manufacturing industries—Durable goods										
1929	196.4		316.3	161.0						
1932: July	94.7		87.8	92.7						
1932	100.0		100.0	100.0						
1936	160.4	40.6	226.7	141.3	62.0					
1937: July	187.3	38.6	292.7	156.3	72.1					
Manufacturing industries—Nondurable goods										
1929	133.6		177.3	132.7						
1932: July	90.3		85.6	94.8						
1932	100.0		100.0	100.0						
1936	125.6	37.7	142.5	113.5	53.1					
1937: July	131.4	37.1	162.1	123.4	58.8					
Blast furnaces, steel works, and rolling mills										
1929	178.5		400.0	224.1			419	235		95
1932: July	93.8	22.8	78.8	84.0	49.3	82.0	77			
1932	100.0	26.1	100.0	100.0	52.7	100.0	100	100	100	100
1936	174.6	40.9	341.6	195.6	67.1	273.6	358	205	131	95
1937: July	207.4	38.1	483.2	233.0	85.8	302.8	419			
Agricultural implements										
1929	401.9		594.8	148.0						
1932: July	68.2	30.7	57.6	84.5	47.7	64.0				
1932	100.0	32.7	100.0	100.0	49.0	100.0				
1936	307.3	39.7	450.6	146.6	61.0	373.1				
1937: July	376.6	38.2	641.3	170.3	72.5	439.9				

[1] Labor data for all the industries except steam railroads are collected by the Bureau of Labor Statistics and published in the monthly bulletin Employment and Pay Rolls. Railroad statistics are collected by the Interstate Commerce Commission.

[2] Derived by multiplying the index of employment by an index of average weekly hours. The indexes of employment and pay rolls are derived from larger samples than are the figures of average weekly hours and average hourly earnings. The coverage has been enlarged and adjustments wherever possible have been made, but the figures of average hours and hourly earnings must be viewed as approximations based on the best available information.

[3] The Federal Reserve indexes without seasonal adjustment are used for most of the production figures. In the case of machine tools, the monthly index of machine-tool orders (3 months' average) constructed by the National Machine Tool Builders Association is used. Railroad revenue traffic figures are derived from Interstate Commerce Commission data. Production of tires and tubes is in terms of crude rubber consumed, which takes account of increased size but not of improved quality. The Federal Reserve index numbers, which take account neither of size nor of quality, are as follows: 1929, 173; 1932, 100; 1936, 147. The indexes of average output and of labor cost per unit of output are approximations subject to serious limitations. (See comment in text.) Indexes of average output and labor cost in the separate industries for July are omitted because employment in a given month may not coincide with the finished production of that month.

TABLE 12.—*Employment, Hours, Earnings, and Production in Selected Industries, 1929, 1932, 1936, and July 1932 and 1937*—Continued

Year and month	Index of number of employees	Average weekly hours	Index of weekly pay rolls	Index of per-capita weekly earnings	Average hourly earnings (cents)	Index of total man-hours	Index of production	Index of output		Index of labor cost per unit of output
								Per employee	Per man-hour	
Machine tools										
1929	397.1		655.9	165.2			770			
1932: July	86.2		79.0	91.6			89			
1932	100.0	31.0	100.0	100.0	60.4	100.0	100			
1936	279.3	44.6	388.1	139.0	63.6	401.9	605			
1937: July	362.7	44.4	557.0	153.6	72.5	519.4	911			
Automobiles										
1929	184.0		287.6	156.3			386	210		75
1932: July	107.4	29.9	106.2	98.9	70.9	102.6	97			
1932	100.0	31.3	100.0	100.0	68.0	100.0	100	100	100	100
1936	188.6	38.5	262.9	139.4	77.0	232.0	320	170	138	82
1937: July	215.5	34.1	318.6	147.8	92.1	234.7	377			
Sawmills										
1929	276.7		492.9	178.1						
1932: July	99.1	35.4	96.7	97.6	32.7	96.6				
1932	100.0	36.3	100.0	100.0	32.9	100.0				
1936	158.4	41.5	231.5	146.1	46.8	181.1				
1937: July	177.6	39.6	287.0	161.6	54.2	193.8				
Cement										
1929	197.2		311.7	158.1			224	114		139
1932: July	98.7	38.4	95.0	96.3	42.8	95.2	120			
1932	100.0	39.8	100.0	100.0	44.1	100.0	100	100	100	100
1936	125.3	38.5	173.2	138.2	57.9	121.2	147	117	121	118
1937: July	152.2	39.0	243.0	159.7	66.5	149.2	180			
Cotton goods										
1929	143.2		205.2	143.3			141	98		146
1932: July	80.0	39.2	68.3	85.4	23.5	70.5	70			
1932	100.0	44.5	100.0	100.0	23.9	100.0	100	100	100	100
1936	138.7	37.5	184.1	132.7	36.8	116.9	142	102	121	130
1937: July	152.0	35.5	220.3	144.9	42.2	121.3	141			
Woolen and worsted goods										
1929	147.5		205.9	139.6			151	102		136
1932: July	86.1	40.9	77.6	90.1	35.3	82.3	87			
1932	100.0	42.8	100.0	100.0	38.0	100.0	100	100	100	100
1936	147.5	36.2	167.9	113.8	50.1	124.8	175	119	140	96
1937: July	144.1	35.6	184.6	128.1	57.9	119.9	134			
Boots and shoes										
1929	114.4		164.0	143.4			116	101		141
1932: July	95.7		90.7	94.8			82			
1932	100.0		100.0	100.0			100	100		100
1936	109.0	35.6	115.4	105.9	49.8		133	122		87
1937: July	116.0	38.2	136.9	118.0	52.0		134			

TABLE 12.—*Employment, Hours, Earnings, and Production in Selected Industries, 1929, 1932, 1936, and July 1932 and 1937*—Continued

Year and month	Index of number of employees	Average weekly hours	Index of weekly pay rolls	Index of per-capita weekly earnings	Average hourly earnings (cents)	Index of total man-hours	Index of production	Index of output		Index of labor cost per unit of output
								Per employee	Per man-hour	
Leather										
1929	132.4		171.9	129.8			137	103		125
1932: July	92.2	41.3	86.9	94.3	41.9	90.6	96			
1932	100.0	42.0	100.0	100.0	42.9	100.0	100	100	100	100
1936	139.2	39.2	174.4	125.3	56.0	129.9	139	100	107	125
1937: July	137.6	38.6	192.6	140.0	63.1	126.5	133			
Flour										
1929	122.7		152.0	123.9			119	97		128
1932: July	99.1	46.9	97.9	98.8	45.6	97.0	95			
1932	100.0	47.9	100.0	100.0	45.3	100.0	100	100	100	100
1936	114.3	43.8	124.3	108.7	53.6	104.5	105	92	100	118
1937: July	118.6	44.5	141.1	119.0	58.0	110.2	104			
Slaughtering and meat packing										
1929	120.0		154.5	128.8			106	88		146
1932: July	98.1	46.5	95.9	97.8	45.0	98.5	85			
1932	100.0	46.3	100.0	100.0	46.5	100.0	100	100	100	100
1936	110.2	42.2	128.9	117.0	56.5	100.4	103	93	103	125
1937: July	111.5	40.4	152.1	136.4	69.2	97.3	75			
Cigars and cigarettes										
1929	132.5		179.1	135.2			121	91		148
1932: July	98.0	41.2	101.1	103.2	32.3	103.0	111			
1932	100.0	39.2	100.0	100.0	31.7	100.0	100	100	100	100
1936	94.9	35.7	105.2	110.9	40.5	86.5	137	144	158	77
1937: July	94.3	37.8	117.5	124.6	45.5	90.9	160			
Newspapers and periodicals										
1929	119.5		137.5	115.1			130			
1932: July	97.3	42.3	95.0	97.6	75.7	96.6	87			
1932	100.0	42.6	100.0	100.0	77.6	100.0	100			
1936	110.8	37.0	109.3	98.6	92.2	96.3	130			
1937: July	111.1	36.3	112.6	101.4	96.8	94.7	118			
Petroleum refining										
1929	126.0		147.7	117.2			120	95		123
1932: July	100.1	41.6	99.7	99.6	63.8	99.6	100			
1932	100.0	41.8	100.0	100.0	63.8	100.0	100	100	100	100
1936	119.9	35.8	128.5	107.2	82.7	102.6	130	108	127	99
1937: July	129.2	35.5	163.5	126.5	96.6	109.7	147			
Rubber tires and inner tubes										
1929	183.9		274.8	149.4			156	85		176
1932: July	103.3	32.2	105.8	102.4	63.1	102.4				
1932	100.0	32.5	100.0	100.0	62.5	100.0	100	100	100	100
1936	136.3	35.4	206.6	151.6	87.3	148.4	172	126	116	120
1937: July	150.0	31.7	227.2	151.5	96.9	146.3				

TABLE 12.—*Employment, Hours, Earnings, and Production in Selected Industries, 1929, 1932, 1936, and July 1932 and 1937*—Continued

Year and month	Index of number of employees	Average weekly hours	Index of weekly pay rolls	Index of per-capita weekly earnings	Average hourly earnings (cents)	Index of total man-hours	Index of production	Index of output		Index of labor cost per unit of output
								Per employee	Per man-hour	
Anthracite mining										
1929	160.0		186.2	116.4			147	92		127
1932: July	71.2	27.1	64.2	90.2	82.5	63.3	74			
1932	100.0	30.5	100.0	100.0	82.3	100.0	100	100	100	100
1936	82.9	30.8	85.1	102.7	83.3	83.7	110	133	131	77
1937: July	72.0	26.0	65.5	91.0	91.5	61.3	61			
Bituminous-coal mining										
1929	148.4		280.9	189.3			173	117		162
1932: July	86.9	23.0	68.5	78.8	50.6	73.5	71			
1932	100.0	27.2	100.0	100.0	52.0	100.0	100	100	100	100
1936	117.2	28.9	198.9	169.7	79.4	124.6	141	120	113	141
1937: July	112.5	25.0	186.5	165.8	88.1	103.4	122			
Crude-petroleum producing										
1929	180.8		226.8	125.4			128	71		177
1932: July	100.2		101.1	100.9			100			
1932	100.0	49.0	100.0	100.0	59.1	100.0	100	100	100	100
1936	131.8	38.4	132.9	100.8	76.7	103.3	139	105	135	96
1937: July	143.9	39.4	160.8	111.7	84.5	115.7	165			
Telephone and telegraph (all employees included)										
1929	126.4		123.3	97.5						
1932: July	100.0	39.2	98.2	98.2	69.8	98.0				
1932	100.0	40.0	100.0	100.0	69.7	100.0				
1936	91.3	38.9	97.3	106.6	78.1	88.8				
1937: July	100.8	39.5	113.6	112.7	81.6	99.6				
Retail trade (all employees included)										
1929	130.2		158.2	121.5						
1932: July	95.2	46.8	93.7	98.4	46.4	96.2				
1932	100.0	46.3	100.0	100.0	48.3	100.0				
1936	111.6	43.5	104.9	94.0	52.2	104.9				
1937: July	114.1	43.4	115.2	101.0	56.9	106.9				
Class I steam railroads (principal salaried groups excluded) [4]										
1929	161.9	45.0	195.7	120.9	64.3	184.4	190	117	103	103
1932: July	97.5	37.8	92.0	94.4	59.8	93.3	90	92	96	102
1932	100.0	39.5	100.0	100.0	60.6	100.0	100	100	100	100
1936	103.2	42.9	122.3	118.5	66.1	112.2	143	139	127	86
1937: July	112.9	43.2	132.4	117.3	64.9	123.5	156	138	126	85

[4] Average weekly hours are based on the annual average of number of employees receiving pay during the month, the number in 1932 being computed from the virtually constant later ratios of the middle-of-the-month count to the number receiving pay during the month. The index of man-hours is constructed from hours paid for, not hours worked.

EARNINGS AND HOURS IN BITUMINOUS-COAL MINING, 1936 [1]

WAGE EARNERS in the bituminous-coal mining industry worked an average of 32.3 hours per week and earned an average of 77.3 cents per hour and $24.96 per week in the latter part of 1936, according to a comprehensive survey of wages, hours, and working conditions in this industry recently completed by the Bureau of Labor Statistics.

It should be remembered, however, that these figures are based primarily on data for a pay-roll period near the close of 1936, and that a few months later a new wage agreement was negotiated between the mine owners and the United Mine Workers. This is known as the Appalachian Agreement, and became effective on April 2, 1937. It provided primarily for a substantial increase in wages.[2] As regards hours of work, the 7-hour day and the 35-hour week were continued in the 1937 agreement, but in an effort to discourage overtime it was provided that all overtime worked by mine workers paid on an hourly or daily basis in excess of the established hours of work was to be paid for at the rate of time and one-half.

An article dealing with annual earnings in the bituminous-coal industry appeared in the July 1937 issue of the Monthly Labor Review, the data having been obtained in connection with this survey. The present article gives only preliminary summary figures on wages and hours by States and type of mine. More detailed analysis by occupation and by wage district will be published later.

Scope of Survey

Previous surveys of wages and hours in the bituminous-coal mining industry, made by the Bureau of Labor Statistics in 1922, 1924, 1926, 1929, 1931, and 1933, covered only underground mines and were limited to the 11 principal coal-producing States, namely: Alabama, Colorado, Illinois, Indiana, Kansas, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia—with the addition of Utah, Washington, and Wyoming in the 1922 survey. In 1936, however, the scope of the survey was extended to include underground mines in 9 additional States—Arkansas, Iowa, Maryland, Missouri, Montana,

[1] Prepared by Victor S. Baril, assisted by Abner C. Lakenan, of the Bureau's Division of Wages, Hours, and Working Conditions.

[2] Although this agreement covers only the Appalachian area, including Pennsylvania, Maryland, Ohio, Michigan, West Virginia, Virginia, eastern Kentucky, and northern Tennessee, it serves as a basis for all other bituminous-coal agreements. Under the Appalachian agreement, yardage and deadwork rates were increased 10 percent; tonnage rates were advanced 10 percent or more; time rates were increased from 8.7 to 12.9 percent in the northern district and from 9.6 to 14.2 percent in the southern district; miners doing mechanical loading, whether in underground or open-pit mines, received an increase of 70 cents per day if they were time workers or an equivalent increase if they were tonnage or piece workers.

New Mexico, Oklahoma, Utah, and Wyoming—and also to include open-pit or strip mines in 4 States. As a result, information was obtained for 94,074 wage earners employed in 516 mines in 20 important coal-producing States. Of these 516 mines, 499, employing 92,658 wage earners, were underground, and 17, employing 1,416 workers, were strip mines. Based on the latest available figures from the Bureau of Mines, these 20 States accounted for 98.7 percent of the production and 98.6 percent of the wage earners in the bituminous-coal industry in 1935.

The survey was conducted on a sample basis, covering approximately 20 percent of the wage earners in the industry. Likewise, it covered approximately 20 percent of the mines producing 10,000 net tons or more per year. Every effort was made to obtain a sample fully representative of the industry. Thus, in selecting mines, such factors as geographical distribution, type, size, degree of mechanization, corporate affiliation, and method of disposal of product were considered.

Originally, it was planned to obtain wage and hour data for one pay-roll period during the last half of November or the first half of December 1936. Approximately 80 percent of the reports were for a pay-roll period during that interval. Due to unavoidable delays in arranging for the keeping of time in certain mines and also to the necessity of making new arrangements in the case of some mines that failed to keep time, as well as to last-minute substitutions, some of the reports were for later periods.

One of the major problems encountered in this as well as in past surveys of the industry was to obtain accurate time records for underground tonnage or piece workers. Very few companies keep a daily record of the hours worked by miners and loaders. In order to obtain accurate time records for this large group of workers, it was necessary to arrange with mine officials to have a special day-by-day record kept of the hours worked by each worker in this group for one pay-roll period. This record was kept either on special forms provided by the Bureau or, if company officials preferred, on company forms. The remaining employees, whether inside or outside, presented no special problem, as they are time workers and a record of their time is always available.

As in former years, data were obtained for individual employees covering starts, hours, and net earnings in the pay-roll period, hours in 1 week, lunch and travel time, and charges properly deductible from gross earnings, namely: The purchase of explosives and carbide, and tool sharpening. In addition, general information was obtained on methods of wage payment and on working conditions.

The method of presentation of the 1936 data differs somewhat from that used in former years. In addition to time at the face, including lunch, and time in the mine, including lunch and travel time, the

actual hours worked at the face or place of work were also computed for miners and loaders. This not only makes it possible to show for these workers the actual hours worked at the face per start and per week and the average earnings received per hour, but it also permits the presentation of average hours and earnings of all wage earners in the industry as a whole and in each State and wage district. Another departure is the discontinuance of the practice of showing figures for a half month, all data on hours and earnings having been reduced to a 1-week basis.

Wages and Hours of All Wage Earners in the Industry

Averages covering all wage earners in the industry for the United States, as well as for the various States, are presented in table 1. An examination of the State figures shows that the average earnings per hour varied more than did the average hours worked per week. It shows further that the widest variation occurred in average earnings per week, this being due to the combined influences of the variations in both average hourly earnings and average weekly hours.

TABLE 1.—*Average Hours and Earnings of Wage Earners in Bituminous-Coal Mining, by States, 1936*

State	Number of mines covered	Number of wage earners covered	Average hours actually worked per week [1]	Average earnings—	
				Per hour	Per week
United States	516	94,074	32.3	$0.733	$24.96
Alabama	16	3,834	32.5	.543	17.65
Arkansas	10	784	28.8	.635	18.26
Colorado	16	1,669	33.8	.831	28.12
Illinois	43	8,757	35.1	.837	29.37
Indiana	24	2,268	34.8	.841	29.23
Iowa	18	1,770	27.9	.738	20.56
Kansas	11	754	30.3	.686	20.79
Kentucky	49	10,760	32.3	.719	23.23
Maryland	6	636	29.4	.745	21.89
Missouri	15	1,064	31.4	.624	19.58
Montana	4	345	33.2	.886	29.43
New Mexico	4	561	35.4	.724	25.62
Ohio	27	6,082	32.0	.775	24.81
Oklahoma	10	699	34.4	.659	22.69
Pennsylvania	128	26,152	31.5	.799	25.21
Tennessee	11	1,517	31.5	.631	19.87
Utah	5	576	37.1	.955	35.40
Virginia	14	2,809	33.0	.679	22.42
West Virginia	97	22,099	31.8	.801	25.50
Wyoming	8	968	35.8	.908	32.48

[1] These figures exclude lunch time and travel time.

On the whole, it will be seen that the average hourly earnings were highest in the far western States, but that the averages for the States east of the Mississippi and north of the Mason and Dixon Line were not very much lower. Although the lowest average (54.3 cents for Alabama) was for one of the southern States, the averages for this area did not differ greatly from those for the States immediately west of the Mississippi.

As previously stated, the average weekly hours did not differ as greatly between States as did the average hourly earnings. On the whole, the averages were somewhat higher in the far western States and in Illinois and Indiana than in the other regions. Southern averages did not differ much from averages for Pennsylvania, Maryland, Ohio, and West Virginia. The shortest average workweek was found in the States immediately west of the Mississippi.

As in the case of average hourly earnings and average weekly hours, the average earnings per week do not, on the whole, show any wide variations when considered on a regional basis. It should be remembered that weekly earnings are dependent on two factors: hourly earnings and weekly hours. Any rise or fall in either of these two averages is inevitably reflected in the average weekly earnings Thus, the high average weekly earnings shown for the far western States and for the States of Illinois and Indiana were the result of the high average earnings per hour and the long average workweek generally found in those States. Likewise, the low average earnings per week found in the South and in the States immediately west of the Mississippi were due to the low average hourly earnings and the short average weekly hours reported for those regions. The average weekly earnings of Pennsylvania, Maryland, Ohio, and West Virginia lagged behind those of Illinois and Indiana and of the far western States largely because their high average earnings per hour were offset in part by their comparatively short workweek.

Wages and Hours in Underground Mines

Wage earners employed in and in connection with underground mines fall into two broad groups, namely: miners and loaders and "other than miners and loaders." The first group is made up exclusively of inside workers, who are generally paid on a tonnage or piece-work basis, whereas the second includes all inside workers other than miners and loaders, and all surface workers. Workers in the latter group are paid on a time rather than a tonnage or piece basis. Due to the special problems encountered, each group will be treated separately.

Wages and Hours of Miners and Loaders

Miners and loaders constitute the largest and most important group in underground mines. In 1936, slightly over 60 percent of the wage earners in underground mines were in this group. Miners and loaders may be either hand or machine workers. Also included in this classification are miners' and loaders' helpers. For this group it is possible to compute average daily and weekly working time and average hourly earnings on a threefold basis, namely: time actually

worked at the face or place of work in the mine;[3] time actually spent at the face, including lunch time; and total time spent in the mine, including lunch and travel time.

The average earnings of all miners and loaders, based on time actually worked at the face or place of work in the mine, were 80.7 cents per hour, $5.42 per start (day), and $24.02 per week. The average actual working time of this group was 6.7 hours per day, 4.4 days per week, and 29.8 hours per week. Including lunch time, miners and loaders were at the face or place of work an average of 7.2 hours per day and 31.8 hours per week, and including both lunch and travel time they were in the mine an average of 8.0 hours per day and 35.3 hours per week. Their average earnings per hour for time actually spent at the face, including lunch, were 75.6 cents and for total time in the mine 68.1 cents. These averages, as well as similar averages by States for miners and loaders, are shown in table 2.

TABLE 2.—*Average Starts (Days), Hours, and Earnings of Miners and Loaders in Underground Mines, by States, 1936*

State	Number of mines covered	Number of wage earners covered	Average starts (days) in 1 week	Average hours based on time—						Average earnings—				
				Actually worked at face		At face, including lunch		In mine		Per hour based on time			Per start (day)	Per week
				Per start (day)	Per week	Per start (day)	Per week	Per start (day)	Per week	Actually worked at face	At face, including lunch	In mine		
United States	499	56,395	4.4	6.7	29.8	7.2	31.8	8.0	35.3	$0.807	$0.756	$0.681	$5.42	$24.02
Ala.	16	2,152	4.4	6.9	30.4	7.4	32.5	8.3	36.4	.551	.517	.461	3.82	16.79
Ark.	10	538	3.9	6.7	26.0	7.2	28.0	7.8	30.3	.643	.598	.552	4.33	16.73
Colo.	16	1,020	4.6	6.9	31.8	7.4	34.1	8.2	37.6	.864	.806	.730	5.98	27.49
Ill.	40	4,005	4.7	6.8	32.3	7.2	34.2	7.9	37.3	.897	.847	.778	6.14	28.99
Ind.	19	805	4.6	6.6	30.6	7.1	32.7	7.6	35.2	1.001	.937	.870	6.63	30.61
Iowa	18	1,299	3.9	6.8	26.2	7.3	28.2	7.7	30.1	.751	.699	.655	5.07	19.70
Kans.	6	369	3.2	6.7	21.5	7.2	23.2	8.0	25.8	.605	.563	.506	4.04	13.03
Ky.	49	6,644	4.6	6.7	30.4	7.0	32.0	7.8	35.4	.761	.725	.655	5.08	23.17
Md.	6	430	4.2	6.5	27.5	7.1	30.0	7.7	32.5	.759	.696	.643	4.96	20.89
Mo.	11	624	3.8	6.7	25.6	7.2	27.5	7.6	28.7	.607	.565	.541	4.09	15.54
Mont.	4	134	4.5	6.8	31.0	7.3	33.1	7.9	35.8	1.000	.936	.866	6.84	30.99
N. Mex.	4	348	4.8	6.6	31.8	7.1	34.2	7.8	37.5	.703	.654	.597	4.66	22.40
Ohio	27	3,989	4.5	6.6	29.9	7.2	32.3	8.0	36.1	.774	.716	.640	5.13	23.11
Okla.	10	455	4.7	6.9	32.4	7.4	34.8	8.0	37.8	.683	.636	.586	4.68	22.13
Pa.	128	17,207	4.4	6.8	29.6	7.3	31.8	8.1	35.4	.821	.764	.686	5.55	24.29
Tenn.	11	1,011	4.5	6.4	28.4	6.9	30.6	7.3	32.8	.617	.572	.534	3.92	17.52
Utah	5	235	4.6	6.9	31.5	7.4	33.8	8.1	37.1	1.168	1.090	.994	8.08	36.84
Va.	14	1,633	4.3	7.0	30.4	7.5	32.5	8.1	35.3	.680	.637	.586	4.76	20.68
W. Va.	97	12,956	4.4	6.6	29.2	7.0	31.1	7.9	35.1	.865	.813	.720	5.70	25.27
Wyo.	8	541	4.9	7.0	34.1	7.5	36.5	8.3	40.7	.979	.913	.821	6.84	33.37

[3] Time at the "face" or place of work in the mine includes all productive time spent in mining or loading coal, as well as any on-duty nonproductive time incidental to mining and loading, such as waiting for mine cars.

Wages and Hours of Wage Earners Other Than Miners and Loaders

As previously stated, this group is made up of inside workers other than miners and loaders and of all outside workers. Approximately 40 percent of the workers covered in this survey were found in this group. In 1936, wage earners other than miners and loaders worked an average of 35.7 hours per week and earned 72.9 cents per hour and $26.03 cents per week. These, as well as similar averages by States, are presented in table 3.

TABLE 3.—*Hours and Earnings of Wage Earners Other Than Miners and Loaders in Underground Mines, by States, 1936*

State	Number of mines covered	Number of wage earners covered	Average hours actually worked per week	Average earnings—	
				Per hour	Per week
United States	499	36,263	35.7	$0.729	$26.03
Alabama	16	1,682	35.1	.534	18.75
Arkansas	10	246	34.8	.622	21.62
Colorado	16	649	37.0	.786	29.10
Illinois	40	4,208	36.1	.781	28.21
Indiana	19	1,147	37.6	.755	28.34
Iowa	18	471	32.3	.710	22.94
Kansas	6	70	29.4	.622	18.25
Kentucky	49	4,116	35.3	.661	23.33
Maryland	6	206	33.3	.721	23.99
Missouri	11	199	35.5	.517	18.34
Montana	4	211	34.6	.821	28.43
New Mexico	4	213	41.2	.749	30.88
Ohio	27	2,093	36.1	.776	28.05
Oklahoma	10	214	38.7	.617	23.88
Pennsylvania	128	8,945	35.3	.765	26.97
Tennessee	11	506	37.7	.651	24.58
Utah	5	341	40.9	.842	34.41
Virginia	14	1,176	36.6	.678	24.84
West Virginia	97	9,143	35.6	.726	25.84
Wyoming	8	427	37.9	.827	31.36

Wage earners other than miners and loaders earned on the average less per hour (7.8 cents) but more per week ($2.01) than did miners and loaders. This was due entirely to the fact that wage earners in the former group averaged more hours of work per week than those in the latter group (35.7 hours as compared with 29.8 hours). The above earnings in each case are based on hours actually worked.

The same trend obtained with regard to most of the States. In all but 4 of the 20 States miners and loaders averaged more per hour, and in all but 5 they averaged less per week, than did wage earners other than miners and loaders. In all States, wage earners other than miners and loaders had a higher, and in some cases a much higher, average workweek than did miners and loaders.

Wages and Hours of Wage Earners in Strip Mines

The amount of bituminous coal mined mechanically in open pits has increased slowly but steadily in recent years. Yet in 1935 the

open-pit or strip mines, according to reports of the Bureau of Mines, accounted for only 6.4 percent of the total bituminous tonnage produced. This type of mine was surveyed by the Bureau of Labor Statistics for the first time in 1936. Data were obtained for 1,416 wage earners in 17 open-pit or strip mines located in 4 of the principal States in which strip mining is carried on. These 1,416 wage earners, according to reports of the Bureau of Mines, represented 12.8 percent of all wage earners in strip mines in 1935. On an average, wage earners in the 17 strip mines covered in the survey worked 42.5 hours per week and received 80.7 cents per hour and $34.33 per week. These averages, as well as similar averages for each of the 4 States covered, are presented in table 4.

TABLE 4.—*Average Hours and Earnings of Wage Earners in Open-Pit or Strip Mines, by States, 1936*

State	Number of mines covered	Number of wage earners covered	Average hours actually worked per week	Average earnings—	
				Per hour	Per week
All States	17	1,416	42.5	$0.807	$34.33
Illinois	3	544	47.5	.866	41.18
Indiana	5	316	35.3	.818	28.91
Kansas	5	315	40.7	.747	30.43
Missouri	4	241	42.9	.724	31.07

Wage earners in strip mines had exactly the same average hourly earnings as miners and loaders in underground mines. The average workweek in strip mines was much longer than in underground mines. Thus, workers in strip mines averaged 42.5 hours per week, as compared with 29.8 hours for miners and loaders and 35.7 hours for other than miners and loaders in underground mines. The much higher average weekly earnings in strip mines as compared with those in underground mines ($34.33 in strip mines as against $24.02 for miners and loaders and $26.03 for other than miners and loaders in underground mines) were due largely to the longer workweek found in strip mines.

Although all four States included in the strip-mine portion of the survey are in the Middle West, the average hours and earnings varied rather widely, the averages for Illinois being much higher than those for the other three States.

Comparison of Wages and Hours in Underground Mines, 1929 to 1936

A limited comparison of wages and hours figures can be made for the years 1929, 1931, 1933, and 1936. Of necessity, this comparison must be confined to the 11 States covered in the earlier surveys and

to workers in underground mines.[4] The data covering miners and loaders will be discussed separately from those relating to wage earners other than miners and loaders.

Wages and Hours of Miners and Loaders, 1929 to 1936

In 1936, miners and loaders earned on an average 75.9 cents for each hour actually spent at the face, including lunch, and 68.2 cents for each hour in the mine including both lunch and travel time. Prior to 1936, no separate data were compiled regarding the actual hours worked at the face or place of work in the mine, exclusive of lunch and travel time, and for that reason a historical comparison cannot be made on that basis.

An examination of table 5 reveals the fact that not only was the sharp decline in the average hourly earnings of miners and loaders between 1929 and 1933 checked by 1936, but also that actually in the latter year miners and loaders averaged more per hour than in 1929. Average earnings per hour had declined over 40 percent between 1929 and 1933, the greater part of this drop taking place from 1931 to 1933. The net gain in average earnings per hour between 1929 and 1936 amounted to slightly more than 10 percent.

The large gains in average hourly earnings between 1933 and 1936 more than offset the 1929–33 losses in eight States, and greatly reduced them in the remaining three, as may be seen from table 5.

Between 1931 and 1936 the average hours per week spent at the face, including lunch time, increased from 25.9 to 31.9, and those spent in the mine, including both lunch and travel time, increased from 28.4 to 35.5. This gain was due almost entirely to a substantial gain in the average number of starts (days) worked per week. This was especially true between 1933 and 1936, as during this period there was a considerable decrease in the average number of hours worked per start. The same general trend appears more or less in the data for the individual States.

The average earnings per week in 1936 were much higher than in 1931, and in most cases they were more than twice as high as the 1933 earnings. These increases were due to the fact that the 1936 average hourly earnings and average weekly hours were higher than in 1931 and much higher than in 1933.

[4] The 1936 sample for the 11 States is smaller than that of former years. Only 20 percent of the wage earners were covered in 1936, instead of approximately one-third as in previous surveys. However, a larger number of small mines was scheduled in 1936 than in former years. This is evidenced by the fact that the drop in the number of employees scheduled was greater than that in the number of mines scheduled. (See table 5.)

TABLE 5.—*Average Starts (Days), Hours, and Earnings of Miners and Loaders, by States, 1929, 1931, 1933, and 1936*

State and year	Number of mines covered	Number of wage earners covered	Average starts (days) worked per week	Average hours based on time—				Average earnings—			
				At face, including lunch		In mine		Per hour, based on time—		Per start (day)	Per week
				Per start (day)	Per week	Per start (day)	Per week	At face, including lunch	In mine		
All States:											
1929	535	99,405	.....	8.0	.....	8.8	.....	$0.687	$0.626	$5.50	.....
1931	469	90,063	3.2	8.0	25.9	8.8	28.4	.599	.546	4.82	$15.54
1933	444	78,896	3.4	8.0	27.1	8.9	30.0	.395	.357	3.18	10.69
1936	427	51,791	4.5	7.2	31.9	8.0	35.5	.759	.682	5.43	24.19
Alabama:											
1929	22	4,740	.....	8.9	.....	9.8	.....	.453	.411	4.03	.....
1931	19	4,541	2.7	8.6	23.5	9.5	26.0	.431	.389	3.69	10.07
1933	20	3,255	2.6	8.8	23.2	9.7	25.5	.262	.238	2.31	6.07
1936	16	2,152	4.4	7.4	32.5	8.3	36.4	.517	.461	3.82	16.79
Colorado:											
1929	16	1,989	.....	7.6	.....	8.2	.....	.815	.750	6.18	.....
1931	17	2,339	2.8	8.1	22.5	8.8	24.5	.740	.682	6.00	16.51
1933	20	2,204	2.8	7.7	21.6	8.3	23.4	.574	.531	4.41	12.38
1936	16	1,020	4.6	7.4	34.1	8.2	37.6	.806	.730	5.98	27.49
Illinois:											
1929	37	14,104	.....	8.1	.....	8.8	.....	.867	.799	7.04	.....
1931	39	11,539	2.8	8.1	23.0	8.8	25.0	.869	.802	7.05	20.14
1933	34	9,472	2.7	8.3	22.5	9.1	24.7	.622	.568	5.15	13.99
1936	40	4,005	4.7	7.2	34.2	7.9	37.3	.847	.778	6.14	28.99
Indiana:											
1929	29	4,691	.....	7.4	.....	7.8	.....	.926	.870	6.83	.....
1931	19	2,514	2.4	7.1	17.1	7.6	18.4	.956	.890	6.77	16.34
1933	16	1,807	3.8	7.8	29.4	8.5	32.0	.691	.636	5.41	20.37
1936	19	805	4.6	7.1	32.7	7.6	35.2	.937	.870	6.63	30.61
Kansas:											
1929	8	1,349	.....	7.1	.....	7.7	.....	.712	.650	5.03	.....
1931	8	1,594	2.1	7.9	16.9	8.3	17.7	.617	.589	4.88	10.43
1933	6	1,101	2.2	7.3	15.9	7.8	17.0	.387	.362	2.83	6.16
1936	6	369	3.2	7.2	23.2	8.0	25.8	.563	.506	4.04	13.03
Kentucky:											
1929	64	11,037	.....	8.1	.....	8.8	.....	.634	.584	5.15	.....
1931	65	10,801	2.8	8.1	23.0	8.9	25.2	.569	.518	4.60	13.08
1933	50	8,008	3.5	8.1	28.2	8.9	30.9	.366	.334	2.97	10.29
1936	49	6,644	4.6	7.0	32.0	7.8	35.4	.725	.655	5.08	23.17
Ohio:											
1929	41	7,625	.....	7.8	.....	8.5	.....	.622	.573	4.87	.....
1931	32	6,840	3.2	7.8	25.2	8.6	27.7	.506	.462	3.96	12.75
1933	29	6,656	3.9	7.6	29.9	8.6	33.8	.353	.313	2.69	10.58
1936	27	3,989	4.5	7.2	32.3	8.0	36.1	.716	.640	5.13	23.11
Pennsylvania:											
1929	136	29,665	.....	8.2	.....	9.1	.....	.645	.580	5.27	.....
1931	125	28,519	3.6	8.0	28.9	8.8	31.9	.567	.513	4.51	16.40
1933	114	25,814	3.4	8.1	27.3	9.0	30.4	.348	.313	2.83	9.52
1936	128	17,207	4.4	7.3	31.8	8.1	35.4	.764	.686	5.55	24.29
Tennessee:											
1929	15	1,183	.....	7.7	.....	8.2	.....	.500	.471	3.86	.....
1931	14	1,265	3.3	8.4	28.0	9.0	30.0	.372	.347	3.12	10.41
1933	17	1,275	3.2	8.0	25.4	8.6	27.4	.301	.279	2.40	7.65
1936	11	1,011	4.5	6.9	30.6	7.3	32.8	.572	.534	3.92	17.52
Virginia:											
1929	22	2,601	.....	7.6	.....	8.1	.....	.568	.532	4.30	.....
1931	16	2,533	3.8	7.8	29.6	8.5	32.2	.515	.474	4.01	15.25
1933	16	2,302	4.1	8.3	34.4	9.2	38.0	.305	.277	2.54	10.53
1936	14	1,633	4.3	7.5	32.5	8.1	35.3	.635	.586	4.76	20.68
West Virginia:											
1929	145	20,421	.....	7.8	.....	8.5	.....	.689	.626	5.35	.....
1931	115	17,578	3.3	8.2	27.6	9.0	30.2	.572	.522	4.72	15.79
1933	122	17,002	3.6	7.9	28.8	8.8	31.8	.383	.347	3.04	11.04
1936	97	12,956	4.4	7.0	31.1	7.9	35.1	.813	.720	5.70	25.27

Wages and Hours of Wage Earners Other Than Miners and Loaders, 1929–36

Between 1929 and 1933 the average hourly earnings of wage earners other than miners and loaders in the 11 States dropped from 60.5 to 43.9 cents. Not only was this decrease wiped out by 1936, but the 1936 average of 72.8 cents shows a gain of approximately 20 percent over 1929. The same trend obtained in individual States except that in Colorado and Illinois the 1936 average was only slightly higher, and in Indiana and Kansas it was somewhat lower, than the 1929 average.

TABLE 6.—*Hours and Earnings of Wage Earners Other Than Miners and Loaders in Underground Mines, by States, 1929, 1931, 1933, and 1936*

State and year	Number of mines covered	Number of wage earners covered	Average hours actually worked per week	Average earnings—	
				Per hour	Per week
All States:					
1929	535	52,806	----------	$0.605	----------
1931	469	47,725	32.3	.595	$19.25
1933	444	41,438	31.9	.439	13.90
1936	423	33,735	35.7	.728	25.99
Alabama:					
1929	22	3,019	----------	.399	----------
1931	19	2,476	28.7	.402	11.58
1933	20	2,000	25.7	.281	7.14
1936	16	1,682	35.1	.534	18.75
Colorado:					
1929	16	1,012	----------	.778	----------
1931	17	1,142	28.1	.777	21.84
1933	20	1,131	31.2	.557	17.32
1936	16	649	37.0	.786	29.10
Illinois:					
1929	37	6,226	----------	.780	----------
1931	39	7,646	30.8	.789	24.33
1933	34	7,721	26.9	.611	16.45
1936	40	4,208	36.1	.781	28.21
Indiana:					
1929	29	2,082	----------	.776	----------
1931	19	1,473	29.9	.783	23.43
1933	16	1,490	38.9	.617	24.09
1936	19	1,147	37.6	.755	28.34
Kansas:					
1929	8	289	----------	.649	----------
1931	8	310	23.9	.646	15.44
1933	6	180	27.4	.494	13.56
1936	6	70	29.4	.622	18.25
Kentucky:					
1929	64	6,924	----------	.533	----------
1931	65	6,755	28.6	.534	15.29
1933	50	4,716	34.2	.365	12.45
1936	49	4,116	35.3	.661	23.33
Ohio:					
1929	41	2,783	----------	.612	----------
1931	32	2,392	31.8	.544	17.35
1933	29	2,243	37.5	.400	15.01
1936	27	2,093	36.1	.776	28.05
Pennsylvania:					
1929	136	12,935	----------	.639	----------
1931	125	11,819	36.1	.610	22.00
1933	114	9,480	30.6	.432	13.21
1936	128	8,945	35.3	.765	26.97
Tennessee:					
1929	15	763	----------	.406	----------
1931	14	518	33.2	.393	13.04
1933	17	529	32.8	.320	10.50
1936	11	506	37.7	.651	24.58
Virginia:					
1929	22	2,098	----------	.466	----------
1931	16	1,899	32.7	.452	14.81
1933	16	1,445	38.1	.326	12.41
1936	14	1,176	36.6	.678	24.84
West Virginia:					
1929	145	14,675	----------	.558	----------
1931	115	11,295	33.3	.532	17.72
1933	122	10,503	33.9	.383	12.91
1936	97	9,143	35.6	.726	25.84

The average hours actually worked per week by wage earners other than miners and loaders in the 11 States declined slightly between 1931 and 1933, namely from 32.3 to 31.9 hours, but increased to 35.7 hours in 1936. It is interesting to note that between 1931 and 1933 only four States (Alabama, Illinois, Pennsylvania, and Tennessee) showed a decrease in the average weekly hours, whereas the other seven States reported varying increases. On the other hand, between 1933 and 1936, there were eight States that showed increases in the average weekly hours, while Indiana, Ohio, and Virginia reported decreases. Compared with 1931, the 1936 averages were substantially higher in all States with the exception of Pennsylvania.

The average weekly earnings of all wage earners other than miners and loaders in the 11 States declined from $19.25 in 1931 to $13.90 in 1933, but rose sharply to $25.99 in 1936. In general, the same trend appears in 10 of the 11 States, the only exception being Indiana, which showed a continued increase from 1931 to 1936.

RECENT TRENDS IN UNEMPLOYMENT[1]

THE November registration of the unemployed calls attention again to the need for accurate, current information concerning unemployment and its attendant problems. It is clear that periodic census enumerations of the Nation's workers will reveal the number employed, unemployed, and partially employed, and will provide in addition certain qualitative information that will be useful in identifying and isolating the various problem groups among the unemployed population.

For obvious reasons, enumerations and registrations can be made only infrequently; and the information they yield, however complete, is applicable only to the date of the census. In order to take full advantage of such census data, therefore, it is necessary to use them as a base from which other data of employment and unemployment may be computed for succeeding intercensal periods. Thus, for example, the Bureau of Labor Statistics, by using the census information as a point of departure, has been able to develop indexes and estimates of employment based upon samples of the total employed population.

But unemployment is not the exact complement of employment; and even with fairly accurate knowledge of the one we could not deduce the other by subtraction, simply because the labor supply does not remain static. Even by the time the census returns can be published, the changes in the number of people available for work may be considerable; and as the enumeration date recedes farther into the past, it becomes increasingly difficult to estimate the extent of *unemployment* by comparing the volume of *employment* with the gainful workers in the last census year.

In the absence, therefore, of complete knowledge of both the total labor supply and the exact number employed at any given time, there is a specific need for a continuing series of data which will indicate the trends of unemployment and which, when "tied" to the census as a base, will make possible regular and systematic estimates of the total number of the unemployed. In many foreign countries, especially those with well-established unemployment-insurance schemes, the reports of the national labor exchanges have been made to serve this purpose and are accepted as the standard information concerning unemployment.

The United States Employment Service has recently been experimenting with the reports submitted by public employment offices in the course of their operations, in an attempt to evaluate them as a source of unemployment data. With more than 4 years of operating

[1] Prepared by Margaret D. Layton, E. D. Vinogradoff, and E. D. Hollander, of the U. S. Employment Service.

experience behind it, the Service has accumulated a considerable store of quantitative and qualitative information relevant to the unemployment situation. Several publications of the Service have already made available material covering the period 1934–37,[2] and others are contemplated for the future. These reports have dealt with persons actively seeking work through the public employment offices and persons placed in employment through the facilities of the Service. The data have been examined from two points of view: quantitatively, in an attempt to detect general trends and to relate them to known trends in employment and unemployment; and qualitatively, in an attempt to deduce from the characteristics of the registrants information concerning the incidence of unemployment in various segments of the working population.

The conclusions derived from this material have been subject to certain recognized limitations. On the quantitative side, the analysis has been handicapped by the absence of authoritative knowledge of the exact extent of unemployment; so that the Employment Service data have been necessarily regarded as a sample—probably a very large sample—of an unknown quantity. Qualitatively considered, the Employment Service applicants may be imperfectly representative of the sex, age, color, industrial, and occupational groups in the unemployed population, but the extent of the bias cannot be determined.

The results of the November registration, when compared with corresponding Employment Service data, may yield valuable information touching the completeness and representativeness of the Employment Service reports. Meanwhile, in this article some of the more recent reports will be examined, particularly as they relate to earlier findings and to data from outside the Service, in an attempt to suggest their significance and their reliability as measures of current unemployment.

Active File as Indicator of Unemployment

The active file is the total number of job seekers registered in all the offices of the Employment Service at any given time.[3] The data are gathered from every State in the Union, through more than 1,500 offices which serve every county. Previous studies have shown that every important group of occupations followed by gainful workers in the United States is represented in the file. The area coverage could hardly be more complete nor the sample of occupations more diverse. Previous analyses have indicated that from 3 to 6 percent of these job seekers were working in regular nonrelief jobs when they first registered, and that a negligible proportion had temporary jobs at

[2] See Twelve and One-Half Million Registered for Work (1935); Who Are the Job Seekers? (1937); Filling Nine Million Jobs (1937); and Survey of Employment Service Information (1937).

[3] The number in the active file is reported for the last day of each month.

the time the data were tabulated. The remainder—an overwhelming majority—were unemployed job seekers.[4]

The number of registrants listed in the active file rose rapidly from the inception of the Service in 1933 to a peak of 8⅓ million in April 1934; declined to 6 million in May 1935; rose again to a peak of some 9⅓ million in March 1936; and thereafter steadily declined, dropping to little less than 4⅔ million in September 1937. It is evident that, numerically at least, the data in the file represented at all times a large sample of the unemployed.

Furthermore, it is clear that a greater proportion of the Nation's unemployed were listed in the active file at the beginning of 1936 than at previous times. This conclusion is based upon the fact that more persons (about 9 million) were listed in the active file in early 1936 than in the former peak of April 1934, while, according to accepted estimates of unemployment, the total number of unemployed decreased from 1934 to 1936. It follows that variations in the number of job seekers listed in the active file, up to January 1936, had little direct relation to changes in the total number of unemployed.

The lack of direct relationship can be traced to several factors. During the first part of the period the Employment Service was in the process of development. This means that the number of job seekers listed in the file increased as additional offices became available, regardless of what happened to the total number of unemployed. Another factor affecting the file was the participation of the Employment Service in Federal work programs and relief activities such as the C. W. A. (which accounted for the 1934 peak of the active file) and the W. P. A. (the advent of which explains the peak of 1935–36). A third influence was exerted by the administrative procedures of the Employment Service, such as periodic intensive reviews of the active file to eliminate errors.[5] This last is largely responsible for sharp, short-time fluctuations.

With the advent of unemployment compensation the number in the file will again, temporarily, vary independently of changes in the total number of unemployed. Experience in Wisconsin indicates that this divergence, though on a smaller scale, may be as noticeable as those caused by the C. W. A. and W. P. A. programs in the past. These and similar variations, independent as they are of changes in the number of the unemployed, constitute the greatest defect of the active file as an index of unemployment.

It is particularly useful, therefore, to examine the variations in the number of registrants listed in the active file during a period when extraneous influences were at a minimum. Such periods existed

[4] About half of these persons were employed on work-relief projects or awaiting assignment to such projects.

[5] For a full discussion, see Survey of Employment Service Information (1937).

from April 1934 to May 1935 and from the beginning of 1936 to the present. Data gathered during the latter period will be examined.

The first question concerning movements in the number of registrants is whether these changes paralleled changes in the total number of unemployed. In the absence of periodic counts of the unemployed, the significance of the active file as a measure of unemployment can best be gaged by comparing the total numbers and the variations of the file with estimates of unemployment, employment, and business activity. It is unfortunate that active file data for only 20 months are suitable for such comparison. Statistical correlation for so short a period is far from conclusive in detail, so that analysis can establish only the existence or the lack of general resemblance.

Active File and Unemployment Estimates

A previous study [6] indicated that fluctuations in the active file and in the National Industrial Conference Board and American Federation of Labor estimates of unemployment showed "recognizably similar tendencies" after January 1935. But it is true that the active file did not maintain a constant relationship with either index, varying, since January 1936, from a maximum of over four-fifths to a minimum of about three-fifths of the estimates of total unemployment made by the American Federation of Labor, and from 101.6 to 73.1 percent of the National Industrial Conference Board estimates. These variations were in part accounted for by the strenuous attempt to eliminate errors in the active file, particularly in June of 1936. After that date the variations of the file in relation to the unemployment estimates were considerably reduced. In general, the active file rose and fell in concert with the two estimates although it showed greater changes.

It may be concluded that during the short period of time for which data are comparable, the number of registrants in the file and the estimates of unemployment discussed were in agreement as far as trend and major variations are concerned, but that the number of registrants in the file changed somewhat more rapidly than either of the series.

Active File and Employment Estimates

It has been mentioned that, at the height of the Works Progress Administration registration, the file listed some 9⅛ million registrants (March 1936), and that this number probably represented the greatest proportion of the Nation's unemployed ever reached by the Employment Service. Sometime after this peak, the Employment Service "cleaned" the file, thereby eliminating all persons who for one reason or another were no longer actively seeking work through the Service,

[6] Survey of Employment Service Information (1937).

but who had remained in the file in error during the press of work entailed in Works Progress Administration registrations. The figure of July 1936 may therefore be considered reasonably reliable. The file from July 1936 to May 1937 decreased by some 1,426,000 registrants, of whom about 1,330,000 were nonagricultural workers. This compares rather well with the Bureau of Labor Statistics' estimate of the increase of nonagricultural employment over the same period, which was placed at 1,425,000.

While employment is not the converse of unemployment, it is important to know that variations in the number of job seekers listed in the active file have a definite relationship to changes in the volume of employment. This relationship is supported by a comparison of the fluctuations in size of the file and in the Bureau of Labor Statistics' estimates of nonagricultural employment. The two resembled each other quite closely, the file decreasing as the index rose.

Active File and Business Activity

Unemployment results from an interplay of the forces of supply and demand for labor. But over a short period the total supply of labor may be taken as fairly constant, so that variations in unemployment are mainly determined by changes in the demand for workers, which are in turn the reflection of varying business conditions. It is therefore interesting to compare changes in the active file with variations in business, as a check on the representativeness of the file. If the movements of the file data correspond to those of business activity, it may be concluded that they fairly accurately reflect changes in the whole body of the unemployed.

A comparison of the monthly variations in the number of registrants in the file (January 1936 to August 1937) with the general business index compiled by the Board of Governors of the Federal Reserve System revealed distinct similarity, the number in the file decreasing in close inverse relationship as the business index rose. A 4-month moving average of the file, taken to smooth out the effect of the file "cleaning" in June 1936, showed even closer similarity to the index, similarly smoothed. The trend of the file's data, eliminating monthly fluctuations, correlated almost exactly with the trend of the business index.

It is important to point out that the time span of the data was much too brief for conclusive comparison, but the data at present available indicate that variations in the number of job seekers listed in the active file seem to reflect movements in business and that these variations reflect business as closely as they resemble estimates of employment and more closely than they resemble estimates of unemployment here discussed.

Detailed Characteristics of Workers Listed in Active File

Not only are the data of the active file useful in estimating trends and variations in the number of unemployed between enumerations, but they may be used also to indicate what is at least equally important—the specific characteristics of the unemployed, which cannot be deduced from estimates. Again safeguards must be mentioned. It has been observed that the proportion of the Nation's job seekers who are in the active file varies from time to time. This is true not only of the total active file but also of the various segments into which it may be subdivided. Not all sections of the country, all ages, nor all occupational and industrial groups are represented in the same proportion in the active file as in the unemployed population.

Furthermore, the same influences that affect the size of the total may also affect any part of it separately. Some of these result in corrective changes, which slowly operate to improve the representativeness of the active file as a sample of the unemployed population. (Thus, the proportion of women among the applicants, which was only 10 percent in the early days of the Service, has risen gradually to 23 percent in more recent months.) Other changes may introduce new biases (as when the widespread use of the Service for the recruitment of workers for public and relief work projects resulted in an overrepresentation of building and construction trade workers). Still other movements, of greater scope and over long periods of time, may reflect trends in the unemployed population itself.

Examples of some noteworthy changes may be found in the Wisconsin active file during the past fiscal year. These are significant because they are in many instances due to the introduction of unemployment compensation, and they indicate the type of change that may be looked for in other States as their unemployment-compensation schemes come into full operation.[7] It has often been claimed that the introduction of unemployment compensation, by compelling registration with the Service as a condition for obtaining benefit, will greatly increase the number of unemployed covered by the Service and make the active file more representative of the unemployed population. The first claim is undoubtedly true. In Wisconsin the active file fell by only 3 percent during the 12 months, compared with an average fall of 26 percent for the country and of 25 percent for the rest of the East North Central region. As regards changes in the composition of the file, while most of them have apparently tended to readjust the lack of balance which has been commented on above, others may introduce new maladjustments owing to the exemption from the scheme of certain groups of workers.

[7] In July 1936, when Wisconsin began paying unemployment benefits, the Wisconsin active file was more representative of the national total, in its composition by sex, age, industry, and occupation, than the file of any other State except one.

A comparison of the industrial distribution of applicants in Wisconsin in July 1936 and July 1937 (table 1) shows marked increases in the proportions coming from manufacturing and mining, commercial, and professional services, and a slight increase in those from domestic and personal services, while the proportions of building and construction workers and of agricultural workers decreased very markedly. (The increase in commercial and other services would have been greater, and that in personal services smaller, had it not been for a change in classification by which the class covering amusements was transferred from the former to the latter category.) The corresponding changes in distribution in the other East North Central States were of negligible proportions, except for an increase in professional, commercial, and personal-service workers.

TABLE 1.—*Percentage Distribution of Active File, July 1936 and 1937, Wisconsin and Other East North Central States,[1] by Industry Groups*

Industry group	Wisconsin		All other East North Central States [1]	
	July 1936	July 1937	July 1936	July 1937
All specified industries	100.0	100.0	100.0	100.0
Agriculture, forestry, and fishing	17.7	14.7	14.0	13.7
Building and construction	19.6	15.5	12.8	12.2
Manufacturing and mining	28.0	33.0	31.9	30.0
Professional, commercial, and mechanical services	2.9	4.6	3.4	5.2
Distribution	10.0	9.4	12.2	11.5
Domestic and personal service	10.4	11.4	12.7	15.6
Public utilities and transportation	6.8	5.5	7.1	7.0
Governmental service	4.6	5.9	5.9	4.8

[1] Ohio, Indiana, Illinois, and Michigan.

The sharp fall in Wisconsin in the proportion of the active file covered by agricultural workers may be attributed in part to recovery from the drought of the previous year, but was undoubtedly due in the main to the exclusion of agriculture from the unemployment-compensation scheme. From now on, therefore, agriculture is likely to be less adequately represented in the active file than formerly. In the States with a large agricultural population, this may considerably bias the Employment Service data on unemployment in the future. By contrast, the comparatively marked change in Wisconsin in the relative proportion of the building and construction trades on the one hand and the manufacturing and commercial groups on the other, probably means that the latter are more adequately represented than heretofore. This change is likely to occur in all predominantly industrial States, with the introduction of unemployment compensation.

Another marked feature of the Wisconsin active file was the increase during the year of 38 percent in the number of woman registrants. By July 1937 they formed 24 percent of the total file, compared with 17 percent 12 months earlier. This increased representation of

women was not confined to Wisconsin, but the additional female registrants in this State came in very large part from manufacturing and, to a lesser degree, from distribution, whereas increases elsewhere were mainly in the class of inexperienced workers and in professional and governmental services. Moreover, in most parts of the country the additional women were between the ages of 20 and 24, but in Wisconsin a large proportion were between 25 and 34 years of age. As these are in general the years of readiest employability for women, it may be assumed that this new group of registrants have not been suffering from unusual unemployment during the past year, but are using the Service now, where they did not before, in order to apply for unemployment benefits. The increase in registration of women from insured occupations, rather than a decrease in unemployment among domestic-service workers, probably explains the small increase in the proportion of the latter in Wisconsin as compared to other States.

Changes in the National Active File

Bearing in mind the limitations on the use of Employment Service data as a basis for generalizations on the state of the labor market, a brief summary will be made in the following pages of changes in the unemployment situation revealed by an inventory of the active file made in July 1937. For the first time it is possible to obtain detailed comparisons over 12 months, which are free from seasonal influences.

The number of workers who were seeking jobs through the Employment Service fell between July 1936 and July 1937 by 26 percent, from over 6½ millions to less than 5 millions. This falling trend was accelerated in the last 3 months, during which the decline was more than 10 percent.

As suggested above, one of the most valuable uses for Employment Service data is the illumination of specific corners of the labor field. No other source of information supplies the necessary facts to show developments over comparatively short periods. Recent changes in the active file have been by no means uniform among different classes of applicants, but they have for the most part continued earlier trends in the file. Those groups that have previously turned over most slowly continue to be problem groups. Some of the salient points are brought out in table 2 which gives summary figures for the main categories of workers.

Perhaps the most striking feature, and one which colors all other changes, is the difference in the movements of men and women in and out of the active file. The number of women seeking work fell during the quarter, April to July 1937, by only 2.3 percent, and the number of white women by as little as 2.0 percent, compared with a reduction in the male active file of 12.3 percent. This was in continuation of a trend which had been apparent in former months, but became more marked after April 1937. The net result was that the

proportion of women in the active file rose from 20.6 percent in April 1937 to 22.5 percent in July—rather more than the proportion of women in the gainfully occupied population as recorded in the census of 1930.

TABLE 2.—*Type of Applicant in Active File, July 1937, April 1937, and July 1936*

Type of applicant	Active file			Percent of change to July 1937 from—	
	July 1937	April 1937	July 1936	April 1937	July 1936
Total applicants	4,901,742	5,460,092	6,619,891	−10.2	−26.0
Men	3,800,418	4,333,391	5,299,702	−12.3	−28.3
Women	1,101,324	1,126,701	1,320,189	−2.3	−16.6
Applicants under 21 years	584,262	496,794	719,680	+17.6	−18.8
Men	359,708	310,693	473,886	+15.8	−24.1
Percent of total men	9.5	7.2	8.9		
Women	224,554	186,101	245,794	+20.7	−8.6
Percent of total women	20.4	16.5	18.6		
Certified applicants	2,558,842	2,898,126	3,868,463	−11.7	−33.9
Percent of total applicants	52.0	52.7	58.4		
Colored applicants	692,998	751,062	920,771	−7.7	−24.7
Men	499,150	550,378	664,229	−9.3	−24.9
Percent of total men	13.1	12.7	12.5		
Women	193,848	200,684	256,542	−3.4	−24.4
Percent of total women	17.6	17.8	19.4		
Veteran applicants	264,161	309,386	373,093	−14.6	−29.2
Percent of total men	7.0	7.1	7.0		

In the main, changes in the numbers of women registered in different States and variations in the numbers classified in different industrial, occupational, and age groups were parallel to the corresponding changes among male applicants. The only States in which the number of women registered decreased more than the number of men, both during the 3- and 12-month periods, were Indiana, Maryland, and South Carolina.

The greater decline among male applicants is also noticeable in all industrial groups except personal service and transport, which latter includes only a very small number of women. The difference is most marked in the governmental and professional-service groups, and particularly in distribution. In the manufacturing group, the metal and transportation-equipment industries, which are almost exclusively male domains, have enjoyed a much greater expansion of activity than the food industries and certain others which employ a larger proportion of women. This has to some extent militated against the absorption of female registrants. But even in such industries as textiles, for which the surplus pool of labor shrank very noticeably during the year, the reduction in the number of woman applicants was proportionately less than that of men.

As in industrial groups, so in age groups. Men of all ages between 25 and 65 seemed to experience a fairly constant relative advantage

over women of the same ages. A special situation exists among the youngest group of job seekers (under 20), which was swelled by a large number of students who left school in June. The number of girls looking for work increased by 41,850 (34.6 percent) between April and July 1937 and the number of boys of the same ages rose by 56,770 (30.7 percent). The comparatively small difference between the actual size of these two groups must be compared with the fact that there are more than three men to every woman in industry as a whole, either in or out of work. This large oversupply of young girls without work experience, however, is one which tends to correct itself in time, by the retirement of a considerable proportion of these potential workers from the labor market to become homemakers.

Lack of experience is not confined to students who have just left school. In July, over 463,000 women—two fifths of all the women registered with the Service—were classified as without recent work experience. Of these, 95,000 were recent students, but most of the rest were seeking jobs as service workers and belonged principally to the older age groups.

It seems from the above that there are several distinct elements in the special problem of unemployment among women. In the first place, a very large proportion of young women seek employment when they first leave school, and those aged 18, 19, and 20 seem to find it difficult to obtain jobs. They are too old to earn children's wages, and they have had no work experience; yet, having been through high school, they apply principally for clerical or sales work. As far as women are concerned, these occupations seem to be already saturated. During the past year the numbers of women classified in clerical and sales occupations declined by only 2 and 4 percent respectively, compared with decreases among men in the same occupations of 24 and 22 percent respectively. A second group of women who are particularly difficult to place are those who in prosperous times would not be in the labor market at all.

A third factor in the women's employment situation is that the industries and occupations in which women are mainly occupied—domestic service, distribution, clerical work, and the lighter manufacturing industries—did not share in the increase in business activity during the period to the same extent as building, transport, and the heavier manufacturing industries. This development was particularly noticeable in the quarter April to July, when building and agriculture enjoyed a seasonal expansion of activity, while textile manufacturing and domestic service showed relatively little improvement.

Finally, where men and women compete in the same industries or occupations, men seem to have found jobs more readily than women. This may be partly an illusion due to the increased use of the Service by certain classes of women as a result of the introduction of social

security. In Wisconsin, the payment of compensation considerably increased the proportion of women among the registrants. In many States which have introduced unemployment-compensation schemes, the Service has been brought to the attention of workers who had never before approached it, even though payments through the employment offices have not yet begun. This may have affected the registration of women more than that of men.

What has happened to the boys who left school recently? Are they, like the girls, likely to find it difficult during the first year or two to get employment in their chosen occupations? It seems that to some extent they will. In July, in spite of the large numbers of 18- and 19-year old students who entered the labor market in June, there were as many youths of 20 and 21 still looking for work as those aged 19, and more of those aged 22 and 23. In July of last year there were about 298,000 applicants of 19 and 20 years of age (that is, born in 1916 and 1917). In July of this year there were nearly 237,000 in this class, now 20 and 21 years old. The decrease over the year in the numbers seeking work in this particular age group was, therefore, only 20.5 percent, compared with a decline among adult men (aged 22 to 65) of 26.7 percent.

As in the case of women, this apparent difficulty in securing a foothold in industry is largely attributable to lack of skill and experience. In a sample investigation of the interrelation of age and occupation, made in 7 States in April 1937, more than half the applicants under 20, compared with a third of the total active file in these States, either were classified as physical laborers or were unassigned to any specific occupation.

There is one important group of unemployed about whom, as a group, more information is desirable. These are the registrants who are certified as eligible for work relief. Many estimates and several studies by W. P. A. have been made of their characteristics, and it has been generally concluded that relief workers on the whole find it harder to reenter the normal stream of employment than other workers, and that the reason for this discrepancy is the fact that workers who are eligible for relief are on the whole older and less highly skilled than other workers. These findings seem to be borne out by more detailed analyses made in Wisconsin of the age and occupational distributions both of registrants in the State's active file certified as eligible for relief work and of those not certified.

The two distributions differ markedly as shown in table 3 and, as far as age is concerned, the difference is more marked among men than among women. Taking 5-year age groups, the proportion of certified men classified in each group over 35 is substantially higher than the corresponding proportions of noncertified men. If those under 20

are eliminated, on the ground that most of them are not heads of families and would not, therefore, be numerous among relief workers, the proportion in every age group over 40 is higher among certified than among noncertified applicants. Moreover, between April and July 1937 the proportion of certified men between 45 and 65 years old increased, whereas the proportion of noncertified decreased.

TABLE 3.—*Age and Occupational Distribution of Applicants in Wisconsin Active File,*[1] *July 1937*

Age or occupational group	Men		Women	
	Noncertified	Certified	Noncertified	Certified
	Percent	*Percent*	*Percent*	*Percent*
All ages, 20 years and over	100.0	100.0	100.0	100.0
20–24 years	27.8	11.6	33.1	31.9
25–34 years	29.3	21.7	28.7	18.1
35–44 years	18.5	22.9	20.7	20.6
45–54 years	14.3	23.9	12.4	19.4
55 years and over	10.1	19.9	5.1	10.0
Median of all ages, in years	29.3	41.9	24.8	31.7
All occupations	100.0	100.0	100.0	100.0
White collar [2]	13.1	11.0	34.2	33.2
Service	5.1	4.2	33.5	55.3
Craftsmen and production workers	45.7	38.6	20.3	8.4
Physical laborers	36.1	46.2	12.0	3.1

[1] Industrial Commission of Wisconsin. Report of Activities of Wisconsin State Employment Service for July 1937.

[2] Professional and clerical workers and salespersons.

Among women the same tendencies are apparent, although the concentration of about 30 percent of total applicants in the 20–24 age group characterizes both certified and noncertified workers. From age 40, however, the proportions of certified women in each group are higher than of noncertified; as among men, the proportions of certified applicants in the higher age groups increased between April and July.

The occupational distributions of certified and noncertified men show a relatively large proportion of unskilled workers among those eligible for relief (46 percent in both April and July, compared with 36 percent among noncertified). Among women more than 55 percent of those eligible for relief, but only a little over a third of the noncertified, were from service occupations. On the other hand, there were about three times as many noncertified as certified in the predominantly industrial occupations.

These facts seem to bear out the suggestion that workers eligible for relief are older and less highly skilled than others. Changes in the active file as a whole indicate that these factors of age and lack of skill are among the most potent in determining reemployment possibilities. Among men, declines over the year were greatest in all parts of the country in the 35–44-year age group, and during the last quarter in the 25–34-year group, with much smaller declines in each

successive 10-year group. Registrants from the craft and production occupations fell by 29 percent during the year; those from the physical labor by only 25 percent.

From table 4, however, it appears that the number of certified applicants continued, during the 3-month period, April to July 1937, to decline more than the rest of the active file. This movement was less marked than in previous months and can be attributed to the policy adopted in many States of withdrawing relief status from those who cannot be placed on relief projects. Moreover, by the last quarter of the fiscal year, the relative movement had been reversed in certain Northern and Pacific States, such as New York, New Jersey, Washington, and others, and in all the Southern States except the Carolinas and Texas. In the Dakotas, owing to the agricultural situation, the numbers of relief eligibles actually increased during the year, and during the last quarter of the year they also rose in the District of Columbia and in Alabama.

TABLE 4.—*Certified and Noncertified Applicants in Active File,[1] July 1937, and Percent Changes From April 1937 and July 1936, by Region*

Region	July 1937			Percent of change from—			
				April 1937		July 1936	
	Noncertified	Certified	Percent certified was of total	Noncertified	Certified	Noncertified	Certified
United States	2,361,879	2,558,842	52.0	−9.1	−11.7	−14.2	−33.9
New England	197,895	194,485	49.6	+10.5	−22.4	+2.4	−32.4
Middle Atlantic	772,534	521,016	40.3	−8.5	−13.0	−24.6	−47.2
East North Central	373,875	534,574	58.8	−1.7	−12.0	−6.1	−32.2
West North Central	216,532	304,163	58.4	−19.4	−10.6	−13.2	−15.5
South Atlantic	228,232	274,309	54.6	−17.8	−10.1	−19.9	−29.9
East South Central	222,916	197,220	46.9	−13.9	−7.2	−5.3	−27.1
West South Central	150,322	256,705	63.1	−8.0	−5.2	+17.6	−32.3
Mountain	88,323	85,849	49.3	−5.4	−17.9	−12.5	−38.4
Pacific	111,250	190,521	63.1	−15.4	−8.1	−19.0	−28.3

[1] Not inventory, but active file at date of inventory.

The decline in the proportion of relief eligibles in the active file as a whole cannot, therefore, be taken to mean that employment opportunities are increasing more rapidly for certified than for noncertified applicants. This fact is brought out by placement figures for the two classes of workers (table 5). The number of placements in private industry from April to June 1937 was 684,838—86 percent more than in the corresponding quarter of the previous year. Only 11.5 percent of the workers placed were reported eligible for relief,[8] although over half of the active file are so certified. Indeed, in spite of a general increase in private placements throughout the

[8] Reports of relief status of placements are not wholly inclusive in all cases, since in many localities facilities for checking current relief status are lacking.

country, the number of relief eligibles reported placed actually declined during the year in 10 States.

TABLE 5.—*Total Placements and Placements of Certified Applicants, April–June 1937, and Comparisons With Earlier Periods*

Type of placement	April–June 1937			Number July 1935–June 1936	Number July 1936–June 1937	Percent of change, 1935–36 to 1936–37
	Number	Percent of change from January–March 1937	Percent of change from April–June 1936			
Total placements	1,102,925	+40.2	−21.0	5,779,499	4,231,805	−26.8
Private	684,838	+38.3	+86.0	1,160,244	2,100,606	+81.0
Percent of total	62.1			20.1	49.6	
Public	399,979	+55.2	−43.8	1,751,724	1,846,269	+5.4
Percent of total	36.3			30.3	43.6	
Relief	18,108	−46.0	−94.3	2,867,531	284,930	−90.1
Percent of total	1.6			49.6	6.7	
Placements of applicants certified for relief [1]	170,453	+21.8	−68.0	3,205,292	935,790	−70.8
Percent of all placements [1]	16.7			59.7	24.0	
Private	72,113	+32.9	+35.5	168,530	256,743	+52.3
Percent of all private	11.5			16.6	13.5	
Nonprivate	98,340	+14.7	−79.5	3,036,762	679,047	−77.6
Percent of all nonprivate	25.0			69.7	34.0	

[1] Excluding New York.

This discrepancy between placements of certified and noncertified workers is not quite so noticeable in public employment, owing partly to the larger proportion of unskilled workers required in public-works projects and partly to a definite policy of granting preference to relief workers. Nevertheless, although these workers formed half the active file, only a quarter of the workers placed in public employment during the second quarter of 1937 were certified.[9]

The difference in employment opportunities for relief and nonrelief applicants is becoming more and more marked as time goes on. In the first 9 months of the 1936–37 fiscal year, 14.5 percent of private and 36.2 percent of nonprivate jobs were filled by certified workers; in the last 3 months only 11.5 and 25.0 percent, respectively.

The relative difficulty of placing relief eligibles has been attributed in part to the slower rate at which unskilled men leave the active file, compared to skilled men. This difference was not evident between July and December 1936, but was fairly marked in April and July 1937 in spite of increased activity in the building and construction industries. It was particularly noticeable in those regions in which the recent recovery in manufacturing has been mainly concentrated—New York and the East North Central States. On the other hand, the reverse occurred in certain middle western and southern States in which the droughts of last summer and this spring caused widespread unemployment among the agricultural population, affecting farmers almost as much as farm laborers.

[9] See footnote 8, p. 1105.

The other most noticeable feature of occupational changes in the active file during the year was the relatively low decline in registrants from "white-collar" as compared with production occupations. This difference was far more marked among women than among men, for among men it occurred only in the last quarter of the year.

Changes in the representation of different occupational groups in the active file to some extent reflect industrial changes. A decline of 27 percent between July 1936 and July 1937 in the number of heavy manual laborers, for example, is connected with the increased activity in building, mining, and iron and steel industries which took place during the year. So also is the relative turn-over of "overall" as against "white-collar" workers. Similarly, the comparatively large declines in the numbers of skilled and semiskilled women, compared with other occupational groups, are accounted for by a marked increase in textile manufacturing.

Table 6 shows that the seasonal expansion in agriculture, building and construction, and distribution, during the quarter April to July of this year, was reflected in a marked decline in the number of registrants from these industries. On the other hand, seasonal factors slowed down the decline in mining registrants. Workers from the machinery, textile, and nonferrous-metal industries also appeared to be leaving the files rather less readily than in the previous 9-month period. Over the year, the industries showing smallest declines in the active file were agriculture, food, rubber, leather, printing and publishing, wholesale distribution, and government. The largest decreases were in metal, transportation, and allied industries.

TABLE 6.—*Industrial Distribution of Active File, July 1937, With Percent Changes From April 1937 and July 1936 Inventories, by Sex*

Industrial group	Active file, July 1937				Percent of change from—			
	Men		Women		April 1937		July 1936	
	Number	Percent	Number	Percent	Men	Women	Men	Women
All specified industries	3,799,403	100.0	1,101,207	100.0	−12.3	−2.2	−26.5	−13.1
Agriculture, forestry, and fishing	725,321	19.1	16,193	1.5	−17.0	−5.2	−21.7	−23.7
Extraction of minerals	163,594	4.3	498	.1	−6.1	−4.2	−31.7	−16.9
Building and construction	522,923	13.8	1,798	.1	−17.7	−8.3	−31.4	−20.4
Manufacturing	618,016	16.3	119,423	10.8	−12.5	−4.8	−33.5	−23.6
Commercial and mechanical services	79,505	2.1	16,760	1.5	(1)	(1)	(1)	(1)
Distribution	306,868	8.1	77,445	7.0	−17.0	−8.4	−36.2	−15.2
Personal service	191,777	5.0	321,414	29.2	[2]+15.0	[2]−1.1	[2]−16.1	[2]−17.6
Governmental service	134,304	3.5	37,074	3.4	−12.0	+3.1	−27.6	−10.8
Professional service	46,107	1.2	40,444	3.7	[2]−32.0	[2]+7.0	[2]−49.3	[2]−6.7
Public utilities	21,613	.6	936	.1	−15.4	−7.4	−32.5	−21.9
Transportation and communication	190,115	5.0	5,777	.5	−15.3	−21.4	−33.9	−21.8
No recent work experience	799,260	21.0	463,445	42.1	−6.2	+0.7	−18.0	−7.2

[1] Change in classification.

[2] Not comparable owing to transfer of "amusements" from professional to personal services.

The industrial changes account for part, but not for all, of the geographical differences in changes of the active file. The number of registrants in the eastern seaboard States, particularly the industrial Middle Atlantic States, declined, it is true, far more than the average. Among the eight most populous States of the Union, decreases over the year ranged from 10 percent in Texas and 11 percent in California and Massachusetts to 27 and 29 percent in New Jersey and Pennsylvania; while the New York active file in July 1937 was less than half its size of a year earlier. The lagging movements in Texas and California appear, however, to extend to all industries and occupations.

For one important group in the active file—the colored applicants—the trends are rather different from those in general. These applicants, because they are concentrated in certain areas and certain occupations, have presented characteristic problems. Colored men have on the whole been overrepresented in the active file compared to white men, and have been decreasing rather less rapidly. Colored women , on the other hand, have been somewhat underrepresented and are decreasing at a faster rate than white women.

Whereas the whole active file of white men declined nearly twice as fast during 1936–37 as the file of white women (29 percent compared with 15 percent), among colored workers the decline was nearly equal for the two sexes—a little less than one-fourth in each case. Similarly, during the second quarter of 1937, the decline was less among colored than among white men, but slightly greater among colored than among white women. This was in general true throughout the country.

On further inquiry, these differences may be traced to divergent trends in the occupational characteristics of white and colored applicants (table 7). The craft and production occupants, in which the greatest declines were recorded among male applicants, included half of all white men but only a third of all colored. On the other hand, nearly two-thirds of the colored men, but only one-third of the whites, were from service and physical labor occupations, in which declines were relatively smaller.

The more rapid falling off in the number of colored women in the active file is closely associated with the greater-than-average drop in woman applicants in the service occupations. More than three-fourths of the colored women are classified in this group, compared to less than one-half of the white women. The very small declines in the sales and clerical groups, however, affected nearly a quarter of the white applicants but exercised a negligible influence on the active file of colored women.

Similar tendencies may be detected in the changes in age distribution of white and colored workers. The decline in the active file was distinctly greater among white than among colored men in the ages

between 20 and 50, in which craftsmen and production workers are most numerous; but in the age between 50 and 65, where manual and service workers tend to concentrate, the decreases were nearly equal. Among women, the colored dropped off faster than the whites in all groups over 25 years, but the disparity was greatest in the ages above 45 where many colored service workers are to be found.

TABLE 7.—*Occupational Distribution of Active File, July 1937, With Percent Changes From April 1937 and July 1936, by Color*

MALE APPLICANTS, JULY 1937

Occupational group	White		Colored		Percent of change from—			
	Number	Percent	Number	Percent	April 1937		July 1936	
					White	Colored	White	Colored
All persons assigned to occupations[1]	3,229,086	100.0	492,761	100.0	−13.0	−9.4	−27.1	−23.0
Professional and kindred workers	138,504	4.3	6,158	1.3	−6.7	−3.3	−20.6	−29.7
Salespersons	125,665	3.9	4,562	.9	−9.8	−7.7	−21.6	−37.2
Clerical workers	171,851	5.3	4,412	.9	−5.6	+.3	−23.8	−35.6
Service workers	187,458	5.8	83,937	17.0	−7.2	−3.7	−24.3	−22.0
Craftsmen	801,013	24.8	55,199	11.2	−15.9	−12.0	−28.7	−24.8
Production workers	894,976	27.7	110,302	22.4	−15.4	−14.2	−28.6	−30.2
Physical-labor workers	909,619	28.2	228,191	46.3	−11.6	−8.6	−26.8	−18.1

FEMALE APPLICANTS, JULY 1937

All persons assigned to occupations[1]	849,453	100.0	187,017	100.0	−2.4	−3.9	−11.8	−21.8
Professional and kindred workers	53,359	6.3	7,660	4.1	−5.0	−5.9	−17.4	−19.0
Salespersons	60,114	7.1	1,133	.6	−3.6	+7.5	−3.1	−33.6
Clerical workers	194,491	22.9	5,405	2.9	+3.3	+8.6	−2.2	−9.7
Service workers	401,822	47.3	150,599	80.5	−4.5	−4.2	−16.1	−22.0
Craftsmen	33,503	3.9	1,669	.9	−8.2	−8.6	−26.1	−34.2
Production workers	81,157	9.6	14,907	8.0	−2.3	−9.4	−10.6	−30.8
Physical-labor workers	25,007	2.9	5,644	3.0	+5.1	+14.2	+11.1	+15.7

[1] Excludes recent students, unemployables, and other persons without work experience.

On the whole, the fate of the unemployed colored workers appears to be closely bound up with their occupational characteristics. They are by and large not older than the whites; on the contrary, they seem to be more and more concentrated in the ages between 25 and 45 years, and it is the older ones rather who are diminishing. Colored women are dropping out of the files more rapidly than white women, suggesting that they are able to compete in the occupations to which they mostly belong; namely, the service occupations. Colored men, on the other hand, are increasing, relatively to the whites, in almost all "overall" occupational groups, especially the less skilled.

These data illustrate conclusions which may be deduced from the active file figures as they stand, with only the most meager possibilities for direct comparison with related information from outside sources. The results of the unemployment registration, when they are available, will provide a standard of direct comparison. Furthermore, as Employment Service data become available for longer periods of time, more positive deductions concerning their significance will be practicable.

REDUCTION OF FEDERAL STUDENT AID

FEDERAL aid to needy school and college students will be reduced about one-third this year as a result of the general curtailment in total relief appropriations, according to an announcement by the National Youth Administration.[1]

Allocations to the State under the Student Aid program for 1937–38 will not aggregate more than $20,000,000 for the school year, which in most localities begins in September. The quotas for student employment will not exceed 220,000. Last year over $28,000,000 was expended on the program, the employment quotas totaling 310,000.

Allotments for school aid, which covers pupils in the secondary schools only, were made some weeks before mid-September. These aggregated $8,156,250. The preliminary estimate of the total sum to be disbursed under the program for the aid of college students was about $10,700,000. The employment quotas were not expected to be more than 140,000 for secondary-school pupils and 80,000 for college students. However, it was pointed out that quotas do not indicate maximum possible employment, and the actual total of those to whom assistance is given probably will be nearer 300,000 than 220,000. Quotas are based on average monthly payments of $6 a month for students in secondary schools and $15 for those in colleges and universities. In the great majority of institutions having student-aid programs these averages are reduced in order that a greater number of individuals may be helped. Thus, in the peak month of April there were a total of 434,744 young people receiving student-aid benefits. Average monthly payments were $4.89 under the school-aid program and $12.65 under the college-aid program.

One of the principal changes disclosed in the 1937–38 Student Aid program is the cutting out of assistance to graduates as a special part of the program. Previously, separate allocations were made to the States and separate quotas designated for students following graduate courses in colleges and universities. Average payments were fixed at $25 per month, with a maximum of $40 per month. In the current year no special allocations for the assistance of college graduates will be made, and quotas for the higher educational institutions will be based on 8 percent of the total enrollment of undergraduate and

[1] Press release, Sept. 19, 1937.

graduate students at an average of $15 per month. Under this provision, however, it is possible to extend aid to graduate students in amounts exceeding those fixed for undergraduates if the individual institution desires to do so, although that practice will mean a proportional reduction of the funds allocated for regular student aid.

TABLE 1.—*Student-Aid Allotments and Employment Quotas for 1937–38*

State	College aid		School aid		Tota	
	Employment quota	Funds	Employment quota	Funds	Employment quota	Funds
Alabama	1,198	$161,730	2,083	$112,500	3,281	$274,230
Arizona	373	50,355	722	39,000	1,095	89,355
Arkansas	706	95,310	2,222	120,000	2,928	215,310
California	5,797	782,595	5,555	300,000	11,352	1,082,595
Colorado	905	122,175	2,083	112,500	2,988	234,675
Connecticut	777	104,895	1,319	71,250	2,096	176,145
Delaware	29	3,915	138	7,500	167	11,415
Florida	807	108,945	2,222	120,000	3,029	228,945
Georgia	1,499	202,365	3,402	183,750	4,901	386,115
Idaho	439	59,265	902	48,750	1,341	108,015
Illinois	4,275	577,125	8,611	465,000	12,886	1,042,125
Indiana	2,042	275,670	3,611	195,000	5,653	470,670
Iowa	1,910	257,850	1,944	105,000	3,854	362,850
Kansas	1,748	235,980	2,916	157,500	4,664	393,480
Kentucky	1,131	152,685	4,583	247,500	5,714	400,185
Louisiana	1,464	197,640	1,666	90,000	3,130	287,640
Maine	364	49,140	625	33,750	989	82,890
Maryland	876	118,260	1,250	67,500	2,126	185,760
Massachusetts	2,360	318,600	4,861	262,500	7,221	581,100
Michigan	2,992	403,920	5,277	285,000	8,269	688,920
Minnesota	2,030	274,050	3,333	180,000	5,363	454,050
Mississippi	883	119,205	1,736	93,750	2,619	212,955
Missouri	2,206	297,810	3,888	210,000	6,094	507,810
Montana	396	53,460	1,180	63,750	1,576	117,210
Nebraska	1,075	145,125	1,458	78,750	2,533	223,875
Nevada	79	10,665	83	4,500	162	15,165
New Hampshire	428	57,780	486	26,250	914	84,030
New Jersey	1,243	167,805	4,513	243,750	5,756	411,555
New Mexico	245	33,075	902	48,750	1,147	81,825
New York State	3,283	443,205	6,527	352,500	9,810	795,705
North Carolina	2,006	270,810	2,569	138,750	4,575	409,560
North Dakota	496	66,960	1,805	97,500	2,301	164,460
Ohio	4,178	564,030	8,888	480,000	13,066	1,044,030
Oklahoma	1,899	256,365	5,277	285,000	7,176	541,365
Oregon	902	121,770	791	42,750	1,693	164,520
Pennsylvania	5,006	675,810	1,597	862,500	6,603	1,538,310
Rhode Island	379	51,165	625	33,750	1,004	84,915
South Carolina	1,026	138,510	2,431	131,250	3,457	269,760
South Dakota	426	57,510	2,431	131,250	2,857	188,760
Tennessee	1,593	215,055	3,305	178,500	4,898	393,555
Texas	4,256	574,560	6,388	345,000	10,644	919,560
Utah	775	104,625	1,041	56,250	1,816	160,875
Vermont	273	36,855	305	16,500	578	53,355
Virginia	1,585	213,975	2,430	131,250	4,015	345,225
Washington	1,606	216,810	1,972	106,500	3,578	323,310
West Virginia	877	118,395	3,611	195,000	4,488	313,395
Wisconsin	2,255	304,425	3,611	195,000	5,866	499,425
Wyoming	133	17,955	222	12,000	355	29,955
New York City	5,117	690,795	7,075	375,000	12,192	1,065,795
District of Columbia	749	101,115	305	16,500	1,054	117,615
Total	79,097	10,678,095	136,777	8,156,250	215,874	18,834,345

This year a special allotment of $70,000 has again been made for the aid of Negro graduate students in those States in which advanced courses for Negroes are not available. A part of this grant will be used "for the establishment of special leadership training projects over and above regular quotas in certain selected institutions."

Special funds for the drought States will be included under the college-assistance program as they were under school aid. In addition

to the regular school-aid allotments to 11 Midwestern States, a grant of $311,550 was made because of the need resulting from drought in the last 2 years. Special allocations of college-assistance funds for a similar purpose will be made to 16 States—the total being estimated at $211,275. This will make it possible to employ about 1,600 additional college students in these States.

No substantial changes have been made in the rules of eligibility and the work requirements under the Student Aid program. Need will still be the major criterion for such aid, and applicants for this assistance must submit evidence that they would be unable to continue in school or college without this help. All beneficiaries are required to carry at least three-fourths of a normal course of study and to make satisfactory records. School and college officials are responsible for the setting up of worthwhile and adequate projects and for the supervision of the students' work. In order to participate in the program, a definite work plan must be mapped out and approved by the State N. Y. A. officials. As in the past, school and college officials select the students who are to be assisted. Aid is restricted to those between the ages of 16 and 24. Young persons wishing to receive this aid should apply to the head of the institution they desire to attend.

TABLE 2.—*Additional Aid to Drought States*

State	College aid	School aid	State	College aid	School aid
Colorado	$23,625	$22,500	Nevada	$2,025	$900
Illinois	6,750	.....	New Mexico	3,375	.....
Iowa	6,750	21,000	North Dakota	16,875	32,500
Kansas	20,250	52,500	Oklahoma	20,250	57,000
Kentucky	13,500	.....	South Dakota	16,875	43,750
Minnesota	20,250	.....	Texas	13,500	.....
Missouri	13,500	42,000	Wyoming	3,375	2,500
Montana	10,125	21,250			
Nebraska	20,250	15,750	Total	211,275	311,550

Tables 1 and 2, showing the grants for school and college aid by States, are subject to slight revision. It will be noted that 5 States—California, Illinois, New York (including New York City), Ohio, and Pennsylvania—are each allotted more than $1,000,000, the New York grants aggregating $1,861,500 and the Pennsylvania allocation being $1,538,310.

MINIMUM SALARIES AND DISMISSAL COMPENSATION IN CHILE [1]

COMMISSIONS to determine minimum salaries, temporary salary increases, family allowances, unemployment aid, and dismissal com-

[1] Chile. Ministerio del Trabajo. Revista del Trabajo, Santiago, March 1937, pp. 87–105; May–June 1937, pp. 19–24.

pensation for employees of private firms, in Chile, were decreed by a law of February 5, 1937, and regulated by decrees of March 22 and May 11, 1937.

This legislation applies to salaried employees of private firms and semiofficial institutions. Persons working on their own account or as members of a civil or commercial collective society may voluntarily take advantage of the provisions of this law. Special provisions are made for insurance agents, for teachers in the vocational school in Valparaiso, for the full-time personnel of the Compulsory Insurance Fund (*Caja de Seguro Obligatorio*), and for certain other classes of salaried employees.

Commissions to Fix Minimum Salaries

No salaried employee of a private firm may be paid less than a minimum salary, which is to be sufficient to satisfy his basic needs for food, clothing, shelter, and for subsistence as a whole (*integral subsistencia*). Persons working less than 24 hours per week are to be remunerated proportionately (on the basis of the minimum salary); in case of persons working for several employers, each employer is to pay an amount proportionate to the length of time worked for him.

The minimum salary for persons under 18 years of age, for those over 65 years whose capacity for work has been reduced, and for persons physically or mentally disabled may be reduced by not to exceed 50 percent, the facts to be established in the latter instances by medical examination without charge to the employee. The minimum salary may be reduced by not to exceed 30 percent for persons from 18 to 21 years who are beginning service as apprentices.

In each Province the establishment of minimum salaries is to be carried out by a mixed commission (*comisión mixta de sueldos*) composed of two employers, two employees, and the governor (*intendente*), who is to preside. A central mixed commission at Santiago, consisting of four employer members appointed by specified organizations, and of four employee members and a Government representative all appointed by the President of the Republic, is to decide questions appealed from the provincial commissions. Members of commissions hold office for 2 years, and all except the governor are paid for their services according to the number of meetings each month, up to a specified limit. Remuneration for members of the salary commissions is derived from a fund to which both employers and employees must contribute.

The commissions are to be named 60 days after publication of this law in the Diario Oficial, and 90 days later the minimum salaries are to be established. If the salaries have not been determined by that time the temporary rates decreed in this law are to continue to apply.

Immediate Salary Increases

Until the mixed commissions fix the minimum salaries in each department, the minimum salary for employees of private firms and of certain semiofficial institutions in Chile is to be 300 pesos per month, but employees in certain specified Provinces and cities where the cost of living is higher are to have a basic salary of 350 or 400 pesos per month. Employers are required to increase all salaries of 1,500 pesos per month or less by percentages varying from 10 to 60 percent according to amount of salary and length of service, and all salaries from 1,500 to 3,500 pesos per month by the increase which is due on the first 1,500 pesos. Employees in the Provinces of Tarapacá and Antofagasta are to receive a special increase of 30 percent over the scale referred to above. For computing the new salary levels, all increases (except those due to promotions) subsequent to January 2, 1935, are to be credited toward the level fixed by this law. The employees of the National Savings Fund (*Caja Nacional de Ahorros*) are to receive increases of from 6 to 30 percent of their present salaries, according to the amount of present salary and type of work, with varying limits for different classes of work. Special regulations are also made for employees of very small commercial or industrial establishments, for teachers and employees of the free primary schools and of benevolent institutions, and for stewards and caretakers of labor dormitories and tenements, who live in these buildings.

Family Allowances

Employees, regardless of the amounts of their salaries, who support mothers, wives, or children under 18 years of age, are to receive for each of these dependents a family allowance of equal amount. These family allowances are to be financed by contributions from employers of 2 percent of salaries paid to employees and contributions from the employees of an equal amount. The employee is exempted from contribution to this fund until he has received an increase in salary provided for by this law, but the employer is required to contribute regardless of this exemption of the employee.

The family allowance is paid by the employer at the time he pays salaries; the Welfare Fund for Employees of Private Firms pays him any amount he may lack to meet these allowances, and if the amount of his contribution is greater than the amount he must pay in allowances, he pays into the Fund what he still owes. The amount of the allowance per beneficiary is to be fixed by the Fund at the end of each year from the experience of the preceding year.

Employers who establish their own system of family allowances, under which their employees make no contribution, provided the allowances paid are equal to or greater than the employer's proportion established by this law, are exempted from compliance with this provision of the law.

Allowances are tax exempt and are not subject to attachment. Semiofficial institutions are not permitted to take advantage of this law to reduce the family allowance already provided for their employees.

Dismissal Compensation

Employers are required to deposit each month in a special fund for dismissal compensation 8.33 percent of the salaries of those employees who receive a monthly salary up to 3,500 pesos. This requirement applies also to the National Fund for Public Employees and Journalists and to other welfare funds. Amounts thus paid go to build up for each employee a fund, to which, with interest, he, or his heirs, will be entitled when he leaves the service; but if he reaches retirement age before leaving service, he will receive only the retirement benefit to which he is entitled. He may borrow from the fund for the purchase of property or the building or improvement of his dwelling. From the effective date of this law, the benefits formerly in effect under the labor code will cease to apply, but persons who had earned the right to those benefits may claim them for time prior to January 1, 1937.

EMPLOYMENT AND UNEMPLOYMENT IN RHODE ISLAND, 1936

SLIGHTLY OVER 16 percent of the 279,988 gainful workers and 13,671 job seekers without occupational experience in Rhode Island in January 1936 were unemployed, and an additional 4.7 percent were on relief projects, according to a census of the population of the State. The percentage employed part time was 5.1, and the sick, physically handicapped, those not reported, etc., constituted 2.3 percent, as shown in table 1. The census was conducted by use of relief funds, and the results were recently published by the Department of Labor of Rhode Island under the title, "The Story of the 680,712."

TABLE 1.—*Employment Status of Gainful Workers and Job Seekers Without Occupational Experience, January 1936*

Employment status	Total	Males	Females
	Percent	*Percent*	*Percent*
Employed full time	71.9	71.7	72.5
Employed part time	5.1	4.4	6.8
Employed on relief projects	4.7	6.1	1.5
Unemployed [1]	16.1	15.3	17.3
Sick, physically incapacitated, not reported, etc.	2.3	2.5	1.9

[1] Includes those without occupational experience but seeking work.

Based on incomplete evidence gathered in this survey, part-time work seems to have had little permanency, and the term "full-time employment" merely means full-time employment at the date of enumeration. The indications are that "such employment fell far short of anything approaching a full-time basis throughout the major part of the year" (1935).

An analysis of employment status by age groups (table 2) discloses that the heaviest unemployment in Rhode Island in January 1936 was in the lower and upper age groups. Since the group under 16 years of age is relatively unimportant numerically, the most serious problem was presented by the 16 to 25 age group, in which 26 percent are reported unemployed. Although the 66 to 75 and the 76 and over age groups had only slightly less full-time employment than the 16 to 25 age group, this situation was not wholly the result of unemployment but was due in a substantial degree to the higher proportion of sick,

physically disabled, and unreported, as well as of those on relief projects. In almost every way the age groups 26 to 35 and 36 to 45 were found to be in a more favorable position, their full-time employment being highest and their unemployment lowest. The age groups 46 to 55 and 56 to 65 are recorded, however, as having slightly heavier percentages on relief.

TABLE 2.—*Employment Status of Gainful Workers and Job Seekers Without Occupational Experience, January 1936, by Age Groups*

Employment status	Percentage in specified age group							
	Under 16	16–25	26–35	36–45	46–55	56–65	66–75	76 and over
Total								
Employed full time	40.1	63.7	78.6	77.7	73.8	69.1	63.1	59.3
Employed part time	5.1	6.1	4.9	4.8	4.8	4.5	4.3	4.0
Employed on relief projects	1.5	2.6	4.5	5.9	6.2	6.2	5.9	4.4
Unemployed [1]	47.8	26.0	10.2	9.4	12.7	16.6	19.6	16.8
Sick, physically incapacitated, not reported, etc.	5.5	1.6	1.8	2.1	2.5	3.6	7.1	15.5
Males								
Employed full time	42.3	61.2	78.2	78.0	73.7	68.0	62.1	57.9
Employed part time	5.6	5.3	4.1	4.1	4.3	4.2	4.0	3.9
Employed on relief projects	2.3	4.0	6.0	7.1	7.0	6.9	6.3	4.7
Unemployed [1]	43.4	27.7	9.8	8.6	12.4	17.1	20.2	17.5
Sick, physically incapacitated, not reported, etc.	6.3	1.7	1.9	2.1	2.6	3.8	7.4	16.0
Females								
Employed full time	37.5	66.9	79.4	76.7	74.2	74.5	69.6	68.0
Employed part time	4.6	7.1	6.6	7.1	6.5	5.8	6.0	5.1
Employed on relief projects	.6	.8	1.2	2.0	2.9	2.8	3.6	2.0
Unemployed [1]	52.8	23.8	11.1	12.1	14.0	13.9	15.5	12.2
Sick, physically incapacitated, not reported, etc.	4.5	1.4	1.7	2.1	2.4	3.0	5.3	12.7

[1] Includes those without occupational experience but seeking work.

Not only are females numerically less important on employment relief projects but the proportion of females on such projects is much smaller in all age groups. However, the percentage of females employed part time is higher than that of males in all age groups reported in the above table, except the group under 16 years of age.

The returns also show that those who reported "no work" at the time of the census had been without jobs for varying periods of time. Table 3 shows in terms of percentages the severity of unemployment by selected periods of unemployment for each sex.

Approximately one-half of all males reporting no work had been without work for a year or longer; slightly less than one-fourth had been unemployed for more than 1⅔ years.

Measured by the time idle, unemployment seemed to have been less severe among women than men, although there was little difference between the sexes in the proportion unemployed for 6 months or less.

While the self-employed and employers constitute only a small proportion of the gainful workers, unemployment was not so heavy among them as among the wage earners. Of the male gainful workers, 8.5 percent were self-employed and 2.9 percent were employers.

The corresponding percentages for female gainful workers were 2.9 and 0.5. At the time of the January 1936 enumeration 80.5 percent of the self-employed males and 90.1 percent of the male employers were reported employed full time as compared with 83.4 percent of the female self-employed and 90.3 percent of the female employers.

TABLE 3.—*Severity of Unemployment, by Selected Periods and by Sex*

Period of unemployment	Unemployed		Period of unemployment	Unemployed	
	Males	Females		Males	Females
	Percent	*Percent*		*Percent*	*Percent*
2½ years or longer	[1] 12.3	8.0	9 months or longer	61.2	59.1
1⅔ years or longer	22.8	16.3	6 months or longer	76.8	75.4
1 year or longer	51.2	46.7	3 months or longer	89.8	87.8

[1] Disregards those reported as "unknown."

In table 4, gainful workers are classified on an industrial, business, and service basis. The figures presented disclose that only 46.2 percent of the male workers reporting building construction as their occupational field had full-time employment January 1936, and that the percentage of full-time employment among males in silk mills was as low as 62.3. On the other hand, the statistics indicate 89.4 percent full-time employment for male professional and semiprofessional workers.

TABLE 4.—*Gainful Workers in Rhode Island, January 1936, by Industry, Employment Status, and Sex*

Industry [1]	Employment status									
	Total		Full time		Part time		Unemployed [2]		Not working [3]	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Total	197,957	82,031	147,682	63,465	9,120	5,942	35,897	10,966	5,258	1,658
Manufacturing and mechanical industries:										
Building construction	12,646	242	5,842	171	953	10	5,437	54	414	7
Chemical and allied products	1,699	280	1,481	243	39	11	141	26	38	.....
Clay, glass, and stone	564	41	314	33	34	2	203	6	13	.....
Clothing	222	646	167	466	14	60	32	105	9	15
Electrical, machinery and supply	773	154	660	127	25	3	77	22	11	2
Furniture, woodworking, finished lumber	939	80	649	59	63	6	200	12	27	3
Independent hand trades	915	218	715	170	26	19	144	26	30	3
Iron and steel	2,805	189	2,118	165	156	8	457	15	74	1
Jewelry	7,929	5,402	5,189	3,410	641	607	1,962	1,339	137	46
Machines and machine tools	8,092	568	6,495	512	347	17	1,051	34	199	5
Other metal	4,869	1,005	3,927	826	257	66	548	95	137	18
Paper and allied products	976	480	786	336	50	52	126	84	14	8
Printing, publishing, and engraving	2,475	545	2,111	461	110	36	220	38	34	10
Rubber	2,531	2,031	1,773	1,541	77	180	586	269	95	41
Shoe and leather	540	255	342	163	19	19	143	63	36	10
Miscellaneous manufacturing	3,001	1,062	2,321	841	151	98	453	107	76	16

[1] According to this classification, patterned after one used by the U. S. Bureau of the Census, all gainful workers (laborers, operatives, skilled craftsmen, clerks, or executives) are included under the industry or service in which engaged.

[2] Includes those on relief projects.

[3] Because of industrial disputes, sickness, or physical incapacity.

TABLE 4.—*Gainful Workers in Rhode Island, January 1936, by Industry, Employment Status, and Sex*—Continued

Industry	Employment status									
	Total		Full time		Part time		Unemployed		Not working	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Textile industries:										
Cotton	10,898	6,391	7,441	4,568	378	322	2,830	1,352	249	149
Woolen and worsted	14,836	11,312	11,643	8,850	859	952	1,846	1,204	488	306
Silk	4,470	4,000	2,787	2,473	530	640	1,068	812	85	75
Textile dyeing, printing, finishing, bleaching	7,588	1,189	6,176	972	399	80	839	111	174	26
Thread and braid	2,375	3,472	1,797	2,305	248	618	293	494	37	55
Other textile	2,787	1,738	2,269	1,416	143	135	328	153	47	34
Trade:										
Wholesale and retail	26,058	8,814	21,310	6,871	909	533	3,311	1,288	528	122
Auto agencies	1,438	188	1,161	167	40	3	182	13	55	5
Advertising	464	85	356	65	22	10	77	10	9	------
Banking and brokerage	1,705	812	1,581	758	9	8	77	35	38	11
Insurance	1,841	1,113	1,650	991	11	12	135	104	45	6
Real estate	686	159	560	139	15	8	90	12	21	------
Miscellaneous	1,182	289	924	195	43	17	186	73	29	4
Transportation and communication:										
Air transportation	41	2	34	2	------	------	7	------	------	------
Construction, maintenance, streets, roads, sewers	2,017	26	671	18	113	2	1,164	5	69	1
Express trucking, bus, and cab companies	3,538	110	2,438	97	183	3	843	10	74	------
Garages and filling stations	4,508	105	3,558	86	150	5	703	12	97	2
Postal services	888	70	829	58	18	4	20	6	21	2
Steam railroads	2,214	38	1,748	36	106	------	293	2	67	------
Street railroads	1,097	28	911	28	21	------	126	------	39	------
Telephone, telegraph, and radio	1,002	1,176	864	1,056	19	40	98	69	21	11
Water transportation	1,313	27	841	22	153	2	287	3	32	------
Other service	201	18	167	17	13	------	19	1	2	------
Food industries:										
Bakeries	2,459	351	2,032	290	56	19	325	41	46	1
Breweries, distilleries, and beverages	736	55	605	51	35	2	66	2	30	------
Slaughter and packing houses	340	49	253	33	20	6	59	8	8	2
Other food	739	222	586	167	32	15	101	38	20	2
Public service:										
City	6,815	4,350	5,374	4,005	265	106	1,031	184	145	55
State	2,283	735	1,889	668	15	8	254	51	125	8
Federal	5,127	303	4,911	275	15	5	137	21	64	2
Electric light and gas	2,820	395	2,509	372	35	7	221	13	55	3
Domestic and personal service:										
Hotels, restaurants, cafes, saloons, apartments	4,736	2,276	3,717	1,832	140	100	760	309	119	35
Laundries, cleaning, pressing	1,443	1,351	1,177	1,106	47	85	176	143	43	17
Other	5,260	10,512	4,050	8,049	211	744	878	1,541	121	178
Professional and semiprofessional service	6,503	6,163	5,812	5,443	122	189	401	395	168	136
Recreation and amusement	1,456	285	926	208	117	39	378	34	35	4
General:										
Farming	6,445	184	4,962	161	202	3	1,031	8	250	12
Fishing	1,138	22	712	19	94	1	296	1	36	1
Forestry	618	21	319	20	19	------	264	1	16	------
Quarrying, mining, sand, and gravel	453	8	250	6	46	------	147	2	10	------
Other industries	118	3	33	3	5	------	78	------	2	------
Industry not reported	4,345	386	959	43	300	25	2,692	110	394	208

Among females the smallest percentage of full-time employment—61.8 percent—was found in the silk mills, and the record for jewelry factories was almost as bad—63.1 percent.

An analysis of industrial full-time employment of gainful workers in Rhode Island as of January 1936, by sex and age, brings out the following facts:

The 16 to 25 age group of females not only is an important group in every industry and service in which women are engaged in large numbers but it actually predominates in the majority of them. Thus more women aged 16 to 25 than of

any other age group are employed in jewelry factories, rubber factories, cotton mills, woolen and worsted mills, silk mills, thread and braid mills, textile industries (other), wholesale and retail trade, domestic and personal service, professional and semiprofessional service, metal industries (other), and miscellaneous manufacturing industries. In many of these industries and services approximately one-half or more of all the females employed are in the 16 to 25 age group: Jewelry factories, 54.8 percent; rubber factories, 60.7 percent; miscellaneous manufacturing industries, 54.7 percent; thread and braid mills, 47.3 percent; silk mills, 46.1 percent; textile industries (other), 48.2 percent; and metal industries (other), 49.3 percent.

Women between 26 and 35 years of age predominated among their sex in banking and brokerage, insurance, telephone, telegraph and radio, and city public service. In no important fields do women between 36 and 45 years of age predominate, although quite a large number of these were reported in cotton mills, woolen and worsted mills, wholesale and retail trade, city public service, domestic and personal service, and professional and semiprofessional service. Women over 45 played a relatively unimportant role in the field of remunerative employment in Rhode Island in 1936 except in domestic and personal service, city public service, and professional and semiprofessional service, although in actual numbers, hundreds were holding jobs in cotton mills, woolen and worsted mills, and wholesale and retail trade.

Although the younger age groups among the males tend to predominate in many of the industries and services, the tendency is less than among the females. The 16- to 25-year-old males have larger numbers than any other age group in a number of the more important fields: Jewelry factories, cotton mills, woolen and worsted mills, bakeries, public service (United States), and farming. The 26- to 35-year-old group predominates among the males in printing, publishing, and engraving; rubber factories; textile dye, print, finish, bleach; wholesale and retail trade; garages and filling stations; public service (city); public service (State); electric light and gas companies; professional and semiprofessional service; and metal industries (other). Five important fields show the largest proportion of males in the 36 to 45 age group: Construction, building; iron and steel industries; machines and machine tools; miscellaneous manufacturing industries; and domestic and personal service. Steam railroads and street railroads employ more men in the 46 to 55 than in any other age group.

Men over 55 years old do not predominate in any industry or service but they are of relative importance in farming, professional and semiprofessional service, domestic and personal service, city public service, and in the machine and machine-tool industry.

In brief, the evidence presented in the report of this Rhode Island census is that "aside from a very few fields employment is dominated by the younger age groups. This is particularly true among the females." According to the investigation, the findings give little hope that the expanding percentage of the population of the State which is moving into the upper age bracket can be readily absorbed occupationally. It is suggested that "this situation would appear increasingly to focus attention upon the various phases and problems of social security."

COLLECTIVE AGREEMENTS IN UPHOLSTERY AND FLOOR-COVERING TRADES

THE UPHOLSTERERS' International Union was organized in 1892 when eight local unions combined to form the first national union in the trade. Since 1900 the union has been affiliated with the American Federation of Labor. Although the convention of 1929 changed the name of the union to the Upholsters, Carpet and Linoleum Mechanics' International Union of North America, the American Federation of Labor charter is still held under the original title. The union's members are principally engaged in the upholstering of furniture and caskets; the manufacture of cushions, mattresses, and box springs; the laying of carpets, linoleum, and soft tiles; and the installation of awnings, window blinds, curtains, and drapes.

Nearly 15,000 workers are covered by the 61 current agreements between upholsterers' local unions and employers on file with the Bureau of Labor Statistics. These agreements cover 31 cities from every geographical area except the South Atlantic States. The agreements are usually uniform for an entire trade in a city, although the common practice is for each individual employer to sign an agreement with the union. Only nine of the agreements were signed by employers' associations—those in Oakland and San Francisco, Calif.; New York City; Tacoma, Wash.; and Milwaukee, Wis.

Union Status and Conditions of Employment

Most of the shops covered by these agreements are closed union shops, with the employer agreeing to secure additions to his staff through the union. Two agreements establish preference for union members while several merely recognize the union as the bargaining agency. Discrimination for union activity or for refusal to invest in the business is specifically prohibited in a number of agreements.

The union is sometimes given a certain period in which to furnish workers, varying from 1 to 2 days. New employees hired on the open market when the union is unable to furnish the required workers must join the union, either before starting work or during a period which is as long as 30 days in some agreements. In many cases such workers must secure a permit card from the union before starting work. The union is given the right in a few agreements to replace

these workers with their own members as such become available. Foremen who work at the trade are usually required to become members. In one case, persons owning less than 20 percent of the business and working in the shop are required to join the union. In some cases foremen are prohibited from doing regular work.

Union representatives are usually granted access to the shop during working hours. In a few cases such a representative is given permission to see only one member of the staff—usually the shop chairman—and must not enter the workrooms. Several agreements provide that bulletin boards are to be made available to the union, that the union label or shop card must be used, and that the union may refuse to work on materials from or destined for an employer against whom a strike has been called. In some agreements the union agrees not to solicit members during working hours and undertakes to discipline its members for infractions of the agreement. The check-off method of collecting dues is established in only one agreement in the Bureau's files.

In several agreements subcontracting of work is subject to approval by the union. Subcontracting within the shop is frequently prohibited. Any contract other than the union agreement between the employer and a worker or group of workers is usually prohibited and existing contracts are declared null and void.

Three agreements require that a list of the regular workers in each shop must be furnished the union on the first of each month. After a specified probation period, varying from a week to 3 months, employees are to be considered regular members of the staff. There is to be equal division of all available work insofar as possible. If some workers must be laid off, seniority is usually specified as the basis of selection, but two agreements grant the right to the members of any department to a rotation system instead of lay-offs by seniority. One agreement prohibits the installation of any machinery which would have the effect of reducing the staff

In a number of agreements the union must be notified of intention to discharge and be given an opportunity to investigate before the worker is required to leave his job. In some cases the worker may be discharged at once but must be reinstated with back pay if the discharge is found to be unwarranted. In one case half pay is given for time lost pending reinstatement. In one agreement violations of plant rules are specified as a reason for discharge, but changes in the rules may be put into effect only 3 days after a union meeting has been given an opportunity to discuss the changes.

Settlement of Grievances and Disputes

Stoppage of work during the life of an agreement, either by strike or lock-out, is prohibited, but most agreements specify that strikes

called by the international union or a central labor body are not to be considered violations of the agreement. In two agreements the employer is liable for damages in case of violations of the agreement and in another the employer may be required to post a bond after the first violation.

Chief reliance in the settlement of disputes is placed upon the shop committee and the shop chairman. These representatives of the union take complaints to the employer but in large shops deal first with foremen and then with higher officials of the company. An outside representative of the union, usually the business agent, is called into the negotiations when necessary. The shop committees are usually composed of two or three members, elected by the workers in the presence of an outside representative of the union. Separate committees for each department are established in large shops. One agreement provides that, whenever a department is not completely organized, the shop committee for that department is to be composed of one union member and one nonmember. Four agreements provide straight pay for time spent in conferences called by the employer and one agreement for all time spent on work of the shop committee.

Only 16 agreements provide for reference of disputes which cannot be settled within the shop, or by the management and an outside representative of the union. One of these refers unsettled disputes to the National Labor Relations Board. In the other 15, unsettled disputes are referred to bipartisan boards, with or without the addition of an impartial chairman. In five cases the board is solely bipartisan. Seven require the immediate selection of an impartial chairman and three provide for the addition of an impartial member only if no agreement is reached. In one of the latter the impartial member is to be selected by a municipal judge if the parties cannot agree upon a person within 48 hours after a complaint has been made.

The size of these arbitration boards varies. Seven agreements provide for one representative of each party, four require two representatives for both the union and the employer, three agreements require three each, and five representatives of each party are provided for in one case. Two agreements with employers' associations require that no person may serve on a board hearing a case which involves his own shop.

Several agreements require that complaints be made within a specified period, usually 24 or 48 hours, but in one case as long as 2 weeks. The arbitration board is similarly required to render a decision within a given time, varying from 2 days to 2 weeks, after the complaint is made.

Wage Rates

Both piece and time rates are found in these agreements. Several agreements require that an entire shop must be on either piece or

time work, and that a change can be made only with the union's consent. Nine agreements prohibit piece work entirely and four prohibit the payment of production bonuses.

When piece rates apply, they are to be determined jointly by the union and the employer and to remain unchanged for the life of the agreement. In one agreement each piece rate is based on the performance of two workers selected jointly; the performance tests are to be made in the presence of both the union representatives and the employer. Another agreement provides that piece rates must be established so as to yield an average of 35 cents an hour to unskilled workers, 40 cents to semiskilled, and 50 cents to skilled workers.

The union is given the right in four agreements to reopen the question of wage level whenever a substantial change occurs in the cost of living or in the general wage level. Payment of wages each week is specifically required in 14 agreements, 7 of which specify that wages must be paid in cash. In a few cases it is provided that a worker transferred temporarily is to receive his usual rate, but a permanent transfer requires the payment of the new rate. In several cases agreements provide that partially disabled or older workers may be permitted to work at a lower rate agreed on by both parties. One agreement fixes this rate at 85 percent of the regular scale. These substandard workers cannot exceed one-eighth of the regular force according to one provision.

In the following table are listed, by city, the hourly rates of pay for specified occupations in those agreements calling for time rates.

Union Scales of Hourly Rates of Pay in the Upholstering and Floor-Covering Trades, by City

City and occupation	Hourly rate	City and occupation	Hourly rate
Los Angeles, Calif.:		**Denver, Colo.:**	
Floor-covering journeymen	$1.00	Floor-covering journeymen	$0.90
Oakland, Calif.:		**Hartford, Conn.:**	
Drapery and upholsterer, estimators and cutters	1.00	Upholsterers, cutters, cushion makers, finishers	1.00
Drapery and blind hangers	1.00	Operators, springers, and outsiders	.75
Upholsterers	1.00	**Washington, D. C.:**	
Seamstresses	.58⅓	Floor-covering journeymen	1.12½
Venetian blind mounters	.60	Seamstresses	.51⅓
San Francisco, Calif.:		**Bloomington, Ill.:**	
Upholsterers	1.10	Garnett machine operators	.55
Upholsterers, retail shops	1.00	Upholsterers	67½
Sectional journeymen	1.00	Frame makers and packers	.50
Cutters, women	.90	Seamstresses	.40
Cutters, men	1.10	Pillow stuffers	.45
Seamstresses	.62½	**Chicago, Ill.:**	
Floor-covering journeymen	1.12½	Awning hangers	1.25
Seamstresses, retail, large machines	.75	Cutters, women	.65
Seamstresses, retail, small machines and hand	.68¾	Awning seamstresses	.56
Seamstresses, wholesale	.62½	Canvas sewers	.40
Casket trimmers	1.00	Upholstery seamstresses	.50
Couch workers, casket	.95	Retail upholsterers	1.00
Shell fitters, casket	.90	Other upholsterers	.79
Casket seamstresses	.60	**Baltimore, Md.:**	
San Jose, Calif.:		Floor-covering journeymen	1.00
Mattress makers	.65	Seamstresses	.45
Mattress fillers	.50	**Boston, Mass.:**	
Floor-covering journeymen	1.12½	Floor-covering journeymen	1.37½
Shade and drapery journeymen	.87½	Seamstresses, floor covering	.72
Upholsterers	.90	Upholsterers	1.15
		Upholstery seamstresses	.55

Union Scales of Hourly Rates of Pay in the Upholstering and Floor-Covering Trades, by City—Continued

City and occupation	Hourly rate
Detroit, Mich.:	
Floor-covering journeymen	$1.25
Carpet sewers, male	1.25
Seamstresses	.80
Minneapolis, Minn.:[1]	
Mattress upholsterers, box-spring makers	.72½
Tape edge, roll edge, button and cotton, and furniture-pad operators; box assemblers, prebuilt border; sagless machine operators, spring department	.70
Bench fillers, tape edge department	.57½
Basters, tape edge department; cutters, second class; upholstery seamstresses; cushion-spring sewers, women	.47½
Feather sorters, women; border wire benders; label sewers; boxing assemblers; sanders; tow pickers	.45
Cushion makers; springers; finishers, first class; feather-pillow cutters and seamstresses; link-machine operators, spring department; miscellaneous inner-spring workers; cushion spring sewers, men; trimmers, assemblers, coilers, beaters, and blowers, filling-machine department	.55
Furniture upholsterers; stitchers; seat makers; outsiders; multiple punch-press operators, spring department; press studio makers; assemblers, spring department	.65
Side cord assemblers, miscellaneous workers, and helical tippers, spring department; borderers and band assemblers, inner-spring department; mattress seamstresses; frame assemblers; Garnett machine helpers; finishers, second class	.50
Upholstery cutters, Garnett machine operators, studio-couch trimmers	.60
Cutters, women	.52½
Dippers and frame assemblers, spring department	.62½
St. Louis, Mo.:	
Upholsterers	.85 .97½
Seamstresses	.50
Floor-covering journeymen	1.05
Awning and tent journeymen	1.10
Awning and tent helpers	.95
Newark, N. J.:	
Floor-covering journeymen	1.25
Floor-covering seamstresses	.90
Drapery journeymen	1.25
Shade cutters	1.06
Shade hangers	1.00
Hand sewers	.90
Table-machine operators	.81¼
Standing-machine operators	.85
Buffalo, N. Y.:	
Upholsterers	.90
Springers	.70
Cushion makers	.70
Seamstresses	.55
Cutters	.75
New York, N. Y.:	
Upholstery table hands, sewing machine and bedding operators	.56¼ .65
Upholstery finishers	.51¾ .60
Drapery cutters	1.35
Upholsterers	1.25
Shade cutters	1.06
Shade hangers	1.00
Upholsterers, wholesale	1.15
Junior upholsterers, wholesale	1.00
Floor-covering journeymen	.90
Rochester, N. Y.:	
Cutters, first class	.79
Cutters, second class	.70
Rochester, N. Y.—Continued.	
Upholsterers	$0.75
Springers	.66
Cushion makers	.66
Seamstresses	.52
Cleveland, Ohio:	
Upholsterers	1.00
Seamstresses	.65
Cutters	.80
Cushion makers	.80
Spring setters	.80
Trimmers	.80
Dayton, Ohio:	
Upholsterers	.75
Seamstresses	.45
Cutters, women	.45
Toledo, Ohio:	
Floor-covering journeymen	1.05
Measurers	1.00
Seamstresses	.65
Oklahoma City, Okla.:	
Upholsterers	.75
Floor-covering journeymen	.75
Seamstresses	.50
Felt-machine operators	.60
Felt-machine operators and mechanics	.65
Roll-edge operators	.75
Portland, Oreg.:	
Upholsterers	.87½
Spring-ups	.75
Cutters, women	.65
Cushion makers	.75
Seamstresses	.60
Slip-seat makers	.65
Frame makers	.62½
Philadelphia, Pa.:	
Upholsterers	1.15 .70
Springers	.50
Cushion makers, seamstresses	.50
Cutters, upholstery	.62½
Drapery hangers, shade and awning cutters, estimators, and measurers	1.15
Carpet and linoleum layers	1.00
Furniture cover, drapery and carpet cutters	1.25
Wilkes-Barre, Pa.:	
Upholsterers	.85 .75
Operators	.45
Outsiders, springers	.60
Seattle, Wash.:	
Upholsterers	.87½
Occasional-chair upholsterers, spring-ups, cushion makers	.75
Cutters, men	.70
Cutters, women	.65
Seamstresses	.60
Slip-seat makers	.65
Soft-tile layers	1.25
Carpet and linoleum layers	1.00
Tacoma, Wash.:	
Upholsterers	.87½
Spring-ups, cushion makers	.75
Cutters, women; slip-seat makers	.65
Seamstresses	.60
Milwaukee, Wis.:	
Floor-covering journeymen	.70
Seamstresses	.45
Benchmen, roll-edge operators, tufters, taping-machine operators, Garnett machine operators, filling-machine head men, upholsterers on studio couches, cutters	.73⅛
Filling-machine helpers	.62⅜
Filling spring pillows, studio trimmers, blowers, pickers, beaters, attachers, premade-border operators, spring center tufting on compressors, assistant cutters, studio frame assemblers	.56⅞
Seamstresses	.55½

[1] Woodworking-mill and iron-bed-department employees' rates not listed.

Hours of Work

Most workers covered by these agreements work a 40-hour, 5-day week with a daily maximum of 8 hours. Ten agreements provide for a 44-hour week, in one case for one occupation only. Four others establish a weekly maximum of 41½, 45, or 48 hours. Only one agreement provides for a workweek less than 40 hours throughout the entire year, this one setting a 35-hour maximum. Another, reflecting seasonal fluctuations in volume of trade, provides for a 35-hour week for all but the months of September through December when 40 hours' work is permissible. Three agreements similarly establish a 44-hour instead of a 40-hour week for September through December, for 6 weeks in each 6 months, and for 12 weeks each year, respectively. One agreement permits 45 instead of 40 hours for 16 weeks each year and another 48 instead of 44 hours for 12 weeks. Work on Saturday at straight pay is permitted, for rush work, in 5 agreements.

Only 7 of the 61 agreements regularly schedule work on Saturday, all but 2 of these providing for a half holiday. Nine agreements prohibit Saturday work, but in one case the prohibition applies only during June, July, and August. In one case 4 hours may be worked on Saturday if a holiday occurs during the week. A regular 9-hour day is established in 2 agreements for the entire workweek and in one agreement for Monday through Thursday, with an 8-hour day Friday. With a few exceptions the workday is from 8 a. m. to 5 p. m. with an hour for lunch. Maintenance workers' hours were frequently longer than those prevailing in the rest of the shop.

Several agreements prohibit the splitting or staggering of shifts, while others prohibit the regular use of more than one shift. One agreement permits a worker to make up during the following week any time lost because of illness or other reasons, while another specifically prohibits this practice.

Overtime, Holiday, and Other Pay Provisions

All the agreements provide for time and a half for overtime, except in 2 cases where a specified lower bonus is to be paid for each hour of overtime work and 6 cases where a double-time rate is established. Eight agreements with time and a half overtime rates provide the double time rate after a designated hour between 9 p. m. and midnight or after 4 hours of such work in any one day. Saturday afternoon is paid for at double time under 5 and all Saturday work under 3 agreements.

A number of agreements provide that overtime must be equally distributed insofar as possible. In 9 agreements a permit from the union is required for all overtime work and in 11 for overtime work on Saturday. Five hours' overtime a week is the maximum permitted

in 3 agreements. Two agreements require advance notification to the union whenever overtime work is required. According to these agreements the overtime must be performed by unemployed members of the union with the exception of one man and one woman regularly employed in the shop.

The usual holidays are New Year's, Memorial Day, Fourth of July, Labor Day, Thanksgiving, and Christmas. Only one agreement provides fewer holidays, omitting New Year's and Memorial Day. Five agreements have 7 holidays, 8 and 9 holidays are provided in 6 agreements each, and 10 and 11 holidays in 2 agreements each. Washington's Birthday is most frequently included as an additional holiday.

Nine agreements require a permit for holiday work, while 18 prohibit work on some or all holidays. Work on Labor Day is usually prohibited except when necessary to save life or property. In one case Labor Day work is permissible after 5 p. m. In 24 agreements all holiday work must be paid for at double time, while in one case double pay is required only for Labor Day work. Several agreements provide that a full day's pay must be given if workers are called to do any part of a day's work on holidays.

Only one agreement establishes paid vacations, granting 1 week on full pay after 2 years' service and 1 week on 3 days' pay after a year of service.

If workers are asked to report for duty and no work is given, a minimum amount must be paid—an hour's pay in one case, 2 hours in 6 cases, a half-day's pay in 13, and a full day's pay in 3 agreements. When workers are laid off during the day, half pay and full pay are provided in 2 agreements each. If workers are requested to wait in the shop, straight time is usually paid although one agreement provides half pay for waiting time. Higher rates are specified for scaffold and swing work in some cases and in one agreement for irregular work.

Since work is often performed on the customer's premises, agreements covering retail shops commonly regulate the conditions of such work. Straight pay is usually specified for time spent in traveling to and from jobs during working hours, in addition to compensation for traveling expenses. A few agreements establish an amount from $2.50 to $4 as the daily payment due for board and lodging. If workers use their own cars for traveling, a specified amount per mile or per day is paid, including in 2 cases public-liability and property-damage insurance.

Apprentices

More than half of the 61 agreements make some provision regarding apprenticeship. The ratio of apprentices to journeymen varies from a provision for one to each journeyman to 1 to 20. The most common ratios are 1 apprentice to 5 and 1 apprentice to 10 journeymen. Some agreements specify a maximum number of apprentices which

may be permitted in any one shop, regardless of its size. In a few cases apprentices may be employed only if journeymen are not available.

It is usually provided that an apprenticeship may be served only once and that the entire apprenticeship may be served in one shop. Limitations on age of beginning apprentices are imposed in only a few agreements, although in the other cases age requirements may be established by the local union's bylaws or by custom. Those beginning an apprenticeship are usually required either to register with the union or to become members. In most cases the apprentice must join the union before starting his apprenticeship, but some agreements provide that apprentices must join within a specified time varying from 1 to 18 months.

The term to be served by apprentices is generally 3 or 4 years, the 3-year term being most common. Seamstresses' apprentices, learning less skilled work, usually serve 2 years. In several agreements, which cover wholesale factories rather than retail shops, special classes of helpers on machine work are required to serve from 8 weeks to a year before receiving the regular rate.

The wage rates received by apprentices depend upon both the local journeyman's rate for that occupation and the length of apprenticeship. The rates of pay are usually increased every 6 months, according to a specified graduated scale, until the regular journeyman's rate is received at the end of the apprenticeship. In some cases, however, the pay increases are granted every 3 months or every year. When the term is long the entrance rate is usually low. Since apprentices to seamstresses have shorter terms and are in training for lower-paid jobs, the spread between the rates received by apprentices at the beginning and end of their terms is much less than in the case of apprentices to other journeymen.

Duration and Renewal

Most of the agreements are signed for 1-year periods, but five have 2-year terms and one has a duration of 6 months only. In most cases agreements are automatically renewed from year to year unless notice of intent to change or terminate is given by either party. A minimum of 30 days' notice must usually be given before the expiration date if changes are desired. Longer notice is required in 11 agreements, which set the time at either 45, 60, or 90 days' notice. In one case the required notification period is only a week. Once renewed under the automatic provision, the agreement generally continues for the same term and under the same renewal provisions as during the original period. In 11 cases automatic renewal is effective only for a period equivalent to the original term of the agreement—one year in all but one case, where the term is 2 years. Four agreements, once renewed, are renewable at 6-month intervals, rather than from year to year, and two continue until terminated by notice, which may be given at any time after the expiration of the original term.

Industrial and Labor Conditions

INDUSTRIAL GROWTH IN NEW YORK CITY

CONTRARY to a rather widely held belief that the number of industries in New York City has been greatly reduced, investigation shows an increase in industrial establishments. The findings of a special representative, appointed by the comptroller of the city of New York,[1] on this subject are borne out by the returns from the Census of Manufactures covering the city, and information from both sources is here reviewed briefly.

Analysis of the Census of Manufactures returns for New York City shows that between 1933 and 1935 the number of factories increased 34.9 percent, the number of wage earners 25.5 percent, and total wages by 39.3 percent. This increase was greater than for the State as a whole. In 1933 New York City had 74 percent of the manufacturing establishments in the State. This percentage rose to 77.1 in 1935. In the same 2-year period New York City's share of the wage earners in the State increased from 53.4 to 54.8 percent of the total and its share of the wage bill from 58.2 to 60.0 percent. In 1935 New York City had a larger proportion of the State's factories, wage earners, and wages than in 1929.

In order to determine trends in industrial development since the time of the 1935 Census of Manufactures, the comptroller of the city of New York commissioned a special representative to study conditions in 1936 and 1937. This survey included a review of official statistics as to location and movement of industry throughout the country, conferences with business and labor leaders, and collection of the information showing why industries had left the city. It was sought to determine how extensive departure of manufacturing establishments had been, the reasons for withdrawal, measures to prevent further removals, and methods by which industries that had moved away might be brought back.

As has been stated, it was found that departures from the city had not been general although certain desirable plants had been lost. Many of these, it is stated in the report, could and should have been saved for the city.

[1] Murphy, Charles E.: Report to Hon. Frank J. Taylor, comptroller of the city of New York, on Industrial Survey of New York City, in three parts, New York, 1936 and 1937; also Press Release of Labor Publications Editor, New York State Department of Labor, Sept. 30, 1937.

Of a group of 476 manufacturing establishments that were reported to have left New York City between 1931 and 1935, 341 were circularized to obtain information on reasons for their withdrawal from the city. Those that responded gave as their reasons in the order of importance: Racketeering in business and labor, high rent, high taxes, high transportation costs and troubles, and high overhead. Only one stated as his reason high wages. None gave as a reason inducements made by other communities. With two exceptions there was no complaint against union-labor activities and in both of these the objection voiced was to "left wing" or radical influence.

THE PLACE OF THE CITY IN OUR NATIONAL LIFE

THE NATIONAL Resources Committee has approved recommendations of its Urbanism Committee whereby the National Government would cooperate extensively with State and local groups, employers, and labor in meeting the major problems that arise in city life. In transmitting the findings of the urbanism group and its own recommendations to the President, the National Resources Committee[1] stated that much attention has been given to the problems of rural America, but that the present study is the first undertaken on a comprehensive scale to determine existing conditions in cities, where over half the population is concentrated.

In the introduction to the report it is stated: "Our Nation is based upon a community of interest in the midst of diversity of occupations." The function of government is that of adjusting maladjustment, whether urban or rural, to the end of bettering national conditions. Since much that threatens the well-being of the country, as well as much that is beneficial, emanates from the cities, attention has been directed to the existing interrelations. At the same time it has been kept in mind that many of the same economic factors enter into both city and country life.

The committee finds that the most drastic inequalities of income and wealth exist in cities. In locating industries not enough is known of labor, purchasing power, tax loads, and related subjects. Towns have grown or dwindled in importance as business has expanded or disappeared. Competing forms of transportation have sometimes taken their toll by diverting the stream of goods and population. City dwellers are hampered by speculative land development, poor housing, and insufficient attention to public health. There are added problems in supplying public education, juvenile care, public finance, and government. To insure that urban government shall

[1] U. S. National Resources Committee. Our Cities, Their Role in the National Economy. Washington, 1937.

keep pace with technical advance the Committee believes that action must be taken "to overcome the continual and cumulative disregard of urban policies and administration and to take into account the place of the urban community in the national economy."

The major suggestions of the Urbanism Committee for solving urban problems, as endorsed by the National Resources Committee, are reviewed briefly:

1. It is urged that efforts be continued and intensified to raise income, as many of the most acute problems of urban life hinge on low income. In addition, study by the Federal Government of the chronically depressed urban areas is suggested.

2. Further cooperation of the Government in social-welfare programs is advocated, to include public assistance, crime prevention and control, use of urban leisure time and cultural activities, and with equality for city and country dwellers. Owing to the national significance of unemployment, Federal assistance for its prevention and relief should be continued in cooperation with State and local agencies.

3. Increased Federal facilities to aid in this program, the Committee believes, should include an urban research agency to perform for city communities work comparable to that done by the Department of Agriculture for the rural population. Urban information should be cleared in a subdivision of the Bureau of the Census. The Central Statistical Board should act to build up urban data now being collected and to improve on the methods of compilation. Finally, the activities of all governmental agencies operating in urban areas should be coordinated.

4. Special legislation for periods of economic stress is recommended, in order that loans and grants could be made to local governments under adequate safeguards and for productive purposes, such as construction (including housing). The Committee advocates that in times of prosperity such Federal expenditures should be reduced to a minimum.

5. The Committee endorses establishment by Congress of a permanent public works authority, responsible for a detailed country-wide public works program and to cooperate with State and local governments in public works planning.

6. A national policy for rehousing low-income groups at acceptable minimum standards is advocated. This enterprise should include the various branches of governmental and private enterprise, and Federal and State aid should be extended in accordance with local needs, dependent upon the existence of a comprehensive city plan (including housing). The policy adopted should be such as to stimulate local initiative, recognize local differences, and encourage local control.

7. Any permanent national planning board, the Committee believes, should engage in a number of activities for the benefit of urban communities in cooperation with State and local governments and private industry. These include continued and extended encouragement, cooperation, and support to State, regional, and local planning agencies; improvement in long-range planning of public works; aid to industrial communities in systematic improvement of their industrial structure; coordination of the transportation system to bring about a more effective and socially desirable urban pattern and distribution of economic activities; and inquiry to determine the probable effect on urbanization of wider distribution of electric power.

8. In order to clear up confusion and inconvenience in the allocation of governmental revenue, a far-reaching inquiry into the tax system is suggested. This should cover conflicting fiscal policies and taxation by local, State, and Federal agencies, and could be carried out by the existing tax revision council or some other suitable agency.

9. Special legislation by Congress is recommended, laying the framework for the adoption of interstate compacts. Such action would enable communities to deal jointly with regional problems of health, sanitation, industrial-waste regulation, control of public utilities, planning, public safety and welfare, education, recreation, and other governmental functions of regional scope.

10. The Federal Government should likewise continue its cooperation in enacting and administering uniform criminal laws and in dealing with crime, criminals, and crime prevention. To this end it is advocated that law-enforcing agencies be fostered locally, in the States, and nationally.

11. Finally, the Committee is of the opinion that the competence and prestige of the urban public service should be raised. This could be accomplished by requiring that State and urban communities receiving Federal grants-in-aid should conform with minimum personnel standards under the merit system in the area where the grants are made; vocational training for public-service occupations might be extended by the Federal Government; and the United States Civil Service Commission could furnish eligible lists to local authorities on request and prepare model personnel standards for given classes of work.

In addition to these specific recommendations the National Resources Committee directs attention to the Urbanism Committee's suggestions dealing with urban land policies, housing, planning, and zoning, as well as sections dealing with governments, reorganization of metropolitan areas, cooperation among municipalities, reshaping local taxation, and special assessments. Consideration of these points is commended to State and local authorities.

IMPROVED LIVING CONDITIONS FOR BRITISH SEAMEN [1]

GREATLY IMPROVED living conditions on board ship, for seamen in the British mercantile marine, are contemplated in regulations which will shortly be made effective. The plan agreed upon is the result of an inquiry that has been conducted over a period of 7 years by a joint commission of representatives of the Board of Trade, shipowners, officers, and seamen. The regulations will apply to all new construction of foreign-going ships, and are to be carried out on existing vessels so far as is structurally feasible.

The most radical change called for under the new regulations is the removal of living quarters from the forecastle. Accommodations for seamen are to be placed either amidships or aft. Specially equipped hospitals must be provided on all ships of 2,500 tons and over engaged in foreign trade, and on smaller ships space must be made available for hospital use when needed.

Other standards set by the new regulations call for cabins 7½ feet in height on vessels of 1,600 gross tonnage and over, and 7 feet on smaller ships (an increase of about 9 inches above present standards); separate sleeping quarters for sailors and firemen for each watch; steel bulkheads separating living quarters from other spaces; prohibition of two rows of bunk tiers against the sides of the ship; individual lockers for clothing; compulsory provision of messrooms large enough to allow for a specified minimum of table and seating space for each man, and individual food lockers; compulsory provision of washrooms with adequate hot water for baths and showers; and improved minimum standards of lighting, heating, and ventilating equipment.

In addition, recreation space must be reserved for the crew on the open decks.

[1] Based on report from Alfred Nutting, clerk, American Consulate General, London, Aug. 6, 1937.

International Labor Relations

OCTOBER 1937 SESSION OF GOVERNING BODY OF INTERNATIONAL LABOR ORGANIZATION

THE REGULAR fall session of the Governing Body of the I. L. O. met on October 5–9, 1937. In honor of the retiring chairman, Jaromir Nečas, Minister of Social Affairs of Czechoslovakia, this meeting was held in Prague at the invitation of his Government. F. W. Leggett, the representative of the British Government and Principal Assistant Secretary of the British Ministry of Labor, was elected chairman for the ensuing year. For this session the United States Government was represented by Isador Lubin, Commissioner of Labor Statistics, and the United States employers by Henry S. Dennison, of Framingham, Mass.

The most important of many decisions taken there affected the agenda of the next session of the annual Conference, which will open next June 2 in Geneva. Already four items had been scheduled for debate during that meeting,[1] but there was a strong demand that this list be extended to include a general convention (treaty) on the 40-hour week and also one on the collection of wages and hours statistics.

Although previous International Labor Conferences had adopted a general convention of principle on the 40-hour week and had adopted conventions of application covering the textile, public works, and glass-bottle industries, conventions of application for a number of other important industries had been defeated. The workers contended that this record, extending over the past 5 years, demonstrated that the debate by separate industries was too slow and uncertain, and that favorable action covering all of industry would be more likely and more rapid if an attempt were made to frame a single convention applying the 40-hour week to all industry. The formal proposal to place such a subject before the 1938 Conference was made by the representatives of the French and American Governments, and was finally adopted by a vote of 20 to 6. The affirmative votes included 10 governments, the entire workers' group, and the representatives of the American and French employers. Negative votes were cast by the other six members of the employers' group. The resolution further specified that the discussion in 1938 was to be preliminary to a further consultation of governments with the objective

[1] These four are: Vocational education, Contracts of indigenous workers, Equality of treatment of migrants, and Hours of work and rest periods in road transport. Each will be the subject of a preliminary discussion, and then, in all probability, will be placed, for a final reading, upon the agenda of the session that will meet 12 months later.

of a final vote on the proposition in 1939. During such investigations, the scope of the proposed treaty will have to be determined.

The sixth item on the next Conference agenda, the Governing Body decided, is to be a convention specifying the minimum extent and the proper form of the collection of national figures on the wages and hours actually prevailing in industry and agriculture. In thus laying the basis for a final decision next June, the Governing Body followed the unanimous report of a Conference of Statisticians that had met in Geneva the previous week. Although six of the employers, not including the American and New Zealand representatives, cast the only votes against 1938 consideration of the subject, they insisted they were opposed not to the Conference consideration of the subject, but only to haste.

The 1939 Conference agenda also was considered by the Governing Body. It is expected that the following five items will be ready for final action during that session, as the result of their preliminary consideration the previous year: Vocational education, Contracts of indigenous workers, Equality of treatment of migrants, Hours of work and rest periods in road transport, and the General 40-hour week. Some members of the Governing Body, therefore, felt that no additional subjects should be included. However, two others were mentioned, and are to be finally considered in the February Governing Body session. These are: Minimum standards of factory inspection, and Weekly rest for commercial employees.

In accordance with the action of the Conference last June, it was unanimously decided to set up an International Committee on the Planning of Public Works. Governments are to be asked to designate representatives to sit upon it, and to comment on the proposed draft of an annual questionnaire on their plans and accomplishments. The Governing Body is expected in February to fix the date for the first session of the committee.

Final action was taken upon the 1938 budget for the Organization following the provisional decisions reached last April and June.

A number of meetings of experts were ordered. On December 3 there is to be a meeting of the Standing Orders Committee. On December 7 a subcommittee will work over the statutes of the public works international committee referred to above. On December 8 a group of experts in the investment of social-insurance funds is to meet. On February 28, experts from countries interested in migration will meet to consider methods of financing such movements of population from countries which wish to encourage emigration to those which wish to encourage immigration.

The Office was ordered to continue its studies in a number of directions and to enlarge its study of the standards of living of workers. The Governing Body approved a 3 months' trip of the Director to India and Egypt to study the problem of better adjusting the proposals for minimum international labor standards to the variations between Oriental and Western conditions.

Negro in Industry

THE NEGRO IN RETAIL TRADE

NEGRO proprietors in 1935 were operating 23,490 retail stores in the United States—a decrease of 2,211 stores as compared with 1929. The reduction in the number of such stores in the South was 2,936. In the North and West, however, they increased, respectively, by 490 and 235.

In 1929 the pay rolls of these stores totaled $8,528,000; in 1935, $5,021,000—a drop of 41.1 percent. For the same years the total value of sales was respectively, $101,146,000 and $48,987,000—a decline of 51.6 percent. Within this period, 1929 to 1935, the number of retail stores operated by proprietors of all racial groups expanded by 110,803, although the chain-store units decreased by 19,828, pay rolls dwindled 30.2 percent, and the aggregate value of all sales declined 32.5 percent.

Only two surveys of retail stores operated by Negro proprietors throughout the United States have been made—one for 1929 and the other for 1935. Consequently, comparison cannot be made between 1933 and 1935, but with the general industrial revival there are indications of increases both in the number of stores and in volume of business.

In 1935, slightly over 67 percent of the total sales of $48,987,000 of all retail stores operated by Negro proprietors was reported by the food group of stores and the eating and drinking places. The sales of the 6,364 grocery stores aggregated $13,621,000—an average of $2,140 per store. Sales by motor-vehicle dealers averaged $16,200 per store, and by household-appliance stores, $12,333. On the other hand, the general average rates of the second-hand stores, lunch counters, and refreshment stands were less than $1,000. More than half of the total value of sales was reported by 9 States—Florida, Georgia, Illinois, New York, North Carolina, Ohio, Pennsylvania, Texas, and Virginia.

Despite the shrinkage from 1929 to 1935 in the number of retail stores operated by Negro proprietors, they gave employment in the latter year to 36,141 persons, including 23,819 active proprietors and firm members who were not on the pay rolls, and 12,322 full-time and part-time employees who received wages amounting to $5,021,000. The following table [1] presents some of the data for 1935

[1] U. S. Department of Commerce. Bureau of the Census. Press release, Washington, Aug. 12, 1937.

secured in a survey of these retail stores made by the United States Bureau of the Census.

Retail Stores Operated by Negro Proprietors, 1935

Kinds of business	Number of stores	Sales (add 000)	Proprietors	Full-time and part-time employees	Total pay roll (add 000)[1]
All stores	23,490	$48,987	23,819	12,322	[2] $5,021
Food group	9,008	17,267	9,094	2,229	761
Candy and confectionery stores	1,338	1,462	1,331	197	62
Grocery stores (without meat)	4,553	6,270	4,585	568	149
Combination stores (groceries and meats)	1,811	7,351	1,847	1,020	396
Meat markets, sea foods	474	851	490	195	63
Other food stores	832	1,333	841	249	91
General stores (with food)	321	1,081	328	83	32
General merchandise group	68	316	65	46	25
Dry goods and general merchandise stores	51	196	51	26	11
Variety, 5-and-10, and to-a-dollar stores	17	120	14	20	14
Apparel group	232	502	245	110	50
Men's stores	25	84	27	10	6
Family clothing stores	21	87	23	20	12
Women's ready-to-wear stores	64	98	71	18	6
Other apparel, accessories	108	195	111	54	22
Shoe stores	14	38	13	8	4
Automotive group	779	1,328	830	344	191
Motor-vehicle dealers	10	162	11	30	31
Garages	734	1,019	783	286	147
Other automotive	35	147	36	28	13
Filling stations	783	2,946	776	433	217
Furniture-household group	74	472	70	105	58
Furniture stores	36	263	32	48	34
Household appliance	12	148	12	33	16
Radio and music	12	27	12	9	5
Other home furnishings	14	34	14	15	3
Lumber-building-hardware group	44	234	46	37	31
Lumber and building material dealers	12	112	9	20	20
Heating and plumbing shops	1	2	1	1	----
Paint and glass stores	6	6	6	3	1
Hardware stores (including farm implements)	25	114	30	13	10
Eating and drinking places	8,568	15,718	8,799	6,962	2,671
Restaurants, cafeterias, lunch rooms	4,309	8,638	4,452	4,181	1,552
Lunch counters, refreshment stands	3,178	2,758	3,217	1,067	285
Drinking places	1,081	4,322	1,130	1,714	834
Drug stores	608	3,760	596	862	431
Other retail stores	2,546	4,914	2,506	981	511
Farmers' supplies	17	123	18	14	10
Book stores	9	46	8	6	4
Cigar stores and stands	306	483	300	94	32
Coal, wood, ice dealers	1,801	3,188	1,787	646	343
Jewelry stores	11	26	11	3	3
Miscellaneous classification	402	1,048	382	218	119
Second-hand stores	459	449	464	130	43

[1] Pay roll includes no compensation for the services of proprietors. A fair allowance should be added.

[2] Part-time proportion of pay roll in 1935 was $616,000.

Of the 22,172 service establishments operated by Negro proprietors in 1935 which were covered in the survey of the Federal Bureau of the

Census made in 1936,[2] approximately 39.3 percent were in the North; 55.0 percent, in the South; and 5.7 percent, in the West. The total receipts were $27,281,000, of which 46.2 percent was reported for the North; 49.1 for the South; and 4.7 percent for the West. Eighty-two percent of the 22,172 service establishments were found in the following 5 types of business: Barber shops; shoe-repair shops and shoeshine parlors; cleaning, dyeing, pressing, alteration, and repair shops; beauty parlors; and funeral directing, embalming, and crematories. The receipts from these enterprises constituted 86.1 percent of the total receipts from all the service establishments operated by Negro proprietors.

Blacksmithing was the only other kind of service business having more than 500 establishments, while two general classifications—namely, adjustment and credit bureaus, and collection agencies; and ticket agents and brokers, and travel bureaus—were the only kinds of service business reporting average receipts per establishment of $5,000 or more. The average receipts per establishment in the United States were $1,230; for the North, $1,449; the South, $1,097; and the West, $1,010. While the Negro population constituted 9.7 percent of the total population of the United States at the census of 1930, in 1935 Negro proprietors operated nearly 32 percent of all shoe-repair shops and shoeshine parlors reported; 20 percent of the cleaning, dyeing, pressing, alteration, and repair shops; 17 percent of all barber shops; 16 percent of the funeral directors, embalmers, and crematories; and about 12 percent of the beauty parlors operated in the United States.

[2] U. S. Department of Commerce. Bureau of the Census. Press release. Washington, Sept. 25, 1937.

Education and Training

VOCATIONAL ACTIVITIES IN FOREIGN COUNTRIES

THE REVIVAL in various branches of vocational training which was noted in 1935 continued and expanded in 1936 and in the early part of 1937. New and amending legislation was introduced to regulate this form of education to bring it into harmony with economic and occupational requirements. As stated in the I. L. O. Year Book, 1936–37, from which the data in this article are taken, competent bodies have come to realize more and more that vocational training in its broadest sense "should be an essential feature of every economic policy. Only in this way can a solution be found for a series of problems which have arisen out of the depression and industrial changes."

The significance of the social aspects of the need for vocational training in order to obtain effective utilization of the human factor in production has been frequently stressed. Recognition of the present importance of this problem is reflected in the selection of vocational training and apprenticeship as subjects for the agenda of the 1938 session of the International Labor Conference.

National Activities

Australia.—Early in 1936 a conference of the ministers and directors of education of all the Australian States decided to request of the Commonwealth Government an appropriation of £2,000,000,[1] distributed over a 4-year period, for the development of technical education. An Australian Education Council, made up of the ministers of education of the various States, was established to facilitate regular consultation on educational matters. The council is authorized to elect to its membership other ministers whose departments deal with labor and industrial affairs.

Under an ordinance of April 2, 1936, applying to the territory of the Federal capital, and to become effective at a date to be designated later, provision was made for the establishment of an apprenticeship board and of trade committees. The New South Wales Employment Research Committee, established in 1934 to study, among other things, problems of juvenile employment, presented to the Minister of Labor a summary report of the opinions of the labor

[1] Average exchange rate of Australian pound in 1936=$3.96.

council and of employers on apprenticeship. The report recommends that a minimum age (16 years) be fixed for apprenticeship; that an independent tribunal be set up to select apprentices and fix the ratio of apprentices to journeymen; that apprentices be exchanged; and that wage rates be fixed for apprentices, etc. The New South Wales Industrial Conciliation and Arbitration Amendment Acts substantially changed the statutory provisions regarding apprenticeship. The system of "trainee apprentices" in skilled trades initiated in 1933 was confirmed and the apprenticeship boards given the same authority over trainee apprentices as over apprentices proper.

Belgium.—Regulation of vocational training by means of Royal orders was continued. The Royal order of May 4, 1936, amended the rules concerning commercial training, while that of May 10, 1936, provided for organization by the Ministry of Education of temporary higher classes in domestic economy and housewifery. The organization of training for architects was provided for by an order of May 14, 1936.

A vocational-guidance center connected with the National Education Museum was established by an order of February 20, 1936, and an order of October 22, 1936, provided for a qualifying certificate for vocational advisers.

The Young Workers' Section of the Belgian Trade Union Committee drew up a list of the demands of young workers, recommending the following reforms: Prohibition of paid employment for children under 16 years of age; extension of protective legislation to cover apprentices, young workers, and salaried employees up to the age of 18 years; organization of compulsory supplementary vocational training up to the age of 18 years (during working hours); inclusion in collective agreements and articles of apprenticeship of a minimum-wage scale based on age and competence; at least 2 weeks' holiday with pay for young workers (including apprentices); comprehensive regulation of apprenticeship under a general measure, etc.

In January 1937 the Belgian Young Christian Workers' Organization carried out an inquiry into apprenticeship in Belgium, with the object of collecting the fullest possible data on various questions connected with apprenticeship. The general committee of the organization decided to get into touch with the trade unions, joint committees, and competent authorities for this purpose.

Brazil.—As a result of a conference called by the Director-General of the National Labor Department to consider the matter of establishing training schools for the hotel industry, a plan of organization for such training will be prepared by the inspector of labor and presented to the employers' and employees' organizations concerned.

China.—Guiding principles for vocational education were set forth in a circular issued February 5, 1937, by the Minister of Education, the competent provincial and municipal authorities being instructed to apply an organization plan based on these principles and to report the measures taken in this connection. The major feature of the plan is the establishment of a network of occupational classes organized by the

universities, the technical schools, and the trade organizations of corporations.

Denmark.—Early in 1937 a new apprenticeship bill was submitted to the Rigsdag by the Minister of Social Affairs. This measure, which was referred to a parliamentary committee before its second discussion by the Rigsdag, provides for the setting up of trade committees under the Ministry, to deal with all problems connected with the training and protection of apprentices. It also provides for an apprenticeship council.

France.—The functions of the chambers of handicrafts were defined by an act adopted by the Senate February 24, 1937. It had previously been passed by the Chamber of Deputies. The chambers of handicrafts will in the future be able to regulate apprenticeship in their crafts.

In July 1936, a vocational-guidance center for handicrafts was set up in the Seine Department.

At its November 1936 session, the Superior Labor Council considered the matter of reclassification of labor and related problems. The recommendations adopted dealt particularly with the regional organization of apprenticeship on an occupational basis, the restriction of the number of apprentices, and the establishment of a central research agency for matters regarding the training, recruiting and hiring of French labor.

At its annual meeting in March 1936 the General Federation of French Production drew attention to the importance attaching to the recruiting of skilled labor, and noted the persistent shortage of such labor, which is a matter for anxiety. The question was dealt with at discussion days held in May 1936.

The Association of Staffs of Public Institutions for Technical Education in France and the French colonies conducted an inquiry into the state of technical education. The report on this inquiry made certain suggestions, bearing especially on the educational side of technical teaching and the organization of technical schools.

To enable youth to bridge the gap between school and workshop the French Young Christian Workers' Organization demanded the extension of the school-leaving age to 16; a special curriculum for boys and girls 13 to 16 years of age, with due attention to preparation for apprenticeship; scholarships and allowances for the families of young people whose school attendance has been extended; the improvement of vocational guidance, etc.

Germany.—Work in connection with the preparation of the new code for the regulation of general education and vocational training of youth was continued, while transitional provisions were adopted for the regulation of certain features of vocational training. The system of compulsory holidays was made general.

The vocational-guidance offices connected with employment exchanges substantially expanded their work. Registrations at these offices of vacancies for apprentices totaled about 333,500, and regis-

trations for vacancies for semiskilled workers numbered 59,400 (in all 100,000 more than in the preceding year).

The State Educational Information Office, previously a Prussian agency, has been converted into a national agency under the title of National Education Office (*Reichsstelle für Schulwesen*) and has the responsibility of collecting facts on vocational and technical schools.

The third general vocational examination was held in March 1936 under conditions similar to those of the 2 previous years. For the first time young unskilled or semiskilled workers were also admitted to this national examination, which was formerly confined to young journeymen or apprentices and students. The new candidates were divided into two groups—those of at least 15 years of age who had worked for at least 3 months, and those of at least 10 years of age who had worked for at least 1 year. The object of this examination was to test the output and occupational qualifications of young unskilled workers with a view to adapting them to work requiring a high standard of competence. In future, therefore, the national vocational examination will cover all classes of young persons.

Greece.—A National Youth Organization was established under an act of November 7, 1936. The Prime Minister is the chairman of this new body and its chief objective is the development of vocational guidance and the organization of spare-time occupations for young people.

Provision for the establishment of a training school for the hotel industry is made by a decree of April 24, 1936.

India.—The Bombay Government gave its approval to a plan under which a number of employers agreed to take into their establishments boys who had a certain standard of education, the term of such employment to be approximately 5 years. Early in 1937, 89 industrial undertakings had volunteered to take on a total of 425 boys per annum as learners, at a beginning wage of 15 rupees [2] a month. The number of boys engaged under this plan will be based on the number of skilled adults which each branch of industry will be able to absorb at the close of the training period. The electrical, engineering, and printing industries have been among the first to engage such trainees. Provision is made in the agreement for the compulsory attendance of these boys at technical evening classes during the training period.

Italy.—The first lictorial labor competitions took place in Rome May 1936. These contests, which are to be held annually, correspond to the examinations in arts, culture, and athletics which university students have been taking for some years past. The purpose of these competitions is to improve the technical, occupational, and cultural standards of young people of the working class. An oral examination in general culture is one of the tests.

Japan.—At the close of 1936 an announcement was made by the Bureau for Social Questions that investigations were to be made into the relations between physical and mental aptitudes and occupational

[2] Average exchange rate of rupee in 1936=37.52 cents.

qualifications, such investigations to cover 93 classes of factory workers.

At the Eighth National Conference on Vocational Guidance held June 11, 1936, at Osaka, under the auspices of the National Vocational Guidance Association, recommendation was made for a more precise definition of the object and scope of vocational guidance, for the appointment of full-time vocational-guidance counselors or officers, for more propaganda in favor of vocational guidance in schools, and for reorganization of the existing apprenticeship system.

Norway.—The draft of a new national plan for vocational training was considered at a meeting, on October 12, 1936, of the Vocational Training Board, with a view to amending the act for the protection of workers and apprentices. The Board again called attention to the necessity of holding classes in supplementary vocational training during working hours.

Poland.—Additional progress was made in 1936 in applying the educational system planned in 1932, which provides for the regulation of vocational and technical training.

The curriculum of engineering studies for the new technical high schools was drafted by the Ministry of Education in cooperation with the chambers of industry and commerce. A number of orders were issued by the Minister in July 1936, having for their object the reorganization of technical schools. Other orders and decrees dealt with the organization of vocational high schools.

The problem of apprenticeship in handicrafts aroused active discussion. A bill for the reorganization of training of handicraftsmen was tabled in the Diet.

The commercial section of the National Vocational Training Board met in the Ministry of Education to consider: (1) The guiding principles for the curricula of commercial high schools; (2) the advisability of setting up special vocational training schools for employees of autonomous public bodies and social-insurance institutions; (3) the advisability of providing a similar form of school for employees of cooperative societies.

Resolutions in regard to improvement of the conditions of apprenticeship, adopted at a conference in February 1937 of woman labor inspectors, recommended prohibition of unpaid employment, fixing of the ratio of apprentices to adult workers, supervision of workshops in which apprentices are employed, preparation by experts of detailed curricula for each trade, medical examination of young people, etc.

The first vocational high schools, which complete the vocational education system provided for by the act of 1932, are to be established during the academic year of 1937.

Portugal.—A National Education Board was established by a decree of May 19, 1936, which also prescribed regulations for the newly created body. The board, which is a technical and advisory agency, is to study problems concerning character building, education, and

general culture of the citizens, and questions relative to the development of their occupational as well as their general abilities.

Rumania.—The general regulation of vocational training and the exercise of trades were provided for in a royal decree of April 29, 1936. A national training center for administrative careers, in connection with the Royal Institute of Administrative Science was established under an order of September 18, 1936.

In November 1936, a psychotechnic institute was opened at Cluj. The function of this and similar agencies that are to be organized later will be to aid vocational-training institutions and to train a staff of vocational-guidance experts.

Switzerland.—Various Federal orders were issued to give effect to different sections of the Federal Vocational Training Act of 1930. Work was also continued by cantonal authorities on amendments to cantonal apprenticeship legislation in order to bring it into conformity with the Federal requirements.

Further progress in domestic apprenticeship in the canton of Zurich was marked by the organization of housewives' training classes, to be followed by an examination, successful examinees to be awarded domestic-apprenticeship certificates.

Union of Soviet Socialist Republics.—The rights and obligations of labor inspectors of juvenile labor were defined in an order of the executive committee of the General Council of Trade Unions issued September 8, 1936. Among the specified duties were supervision of the admission of pupils to vocational schools connected with workshops and factories, and protection of these young learners; supervision of the regular employment of young women in productive employment according to their abilities and to insure their advancement to more skilled tasks, etc.

Great progress has been made in the training of skilled workers during the past few years. The number of pupils admitted to the vocational schools attached to factories and workshops rose from 255,000 in 1933 to 294,100 in 1934 and 325,000 in 1935. Side by side with this increase in the number of apprentice pupils, it was also noticed that there was a very marked rise in the attendance at workers' colleges (276,000 persons in 1936 as compared with 49,200 in 1928). The proportion of workers in higher educational institutions rose from 25.4 percent in 1928 to 45 percent in 1935. The provision of minimum technical training and classes for workers belonging to the Stakhanov movement was also widely extended.

The expenditure on training skilled workers (6,500 million rubles in 1937 compared with 4,800 million rubles in 1936) is an important one in the aggregate cost of education in the Soviet Union (18,500 million rubles in 1937 compared with 13,900 million rubles in the preceding year). Up to 1936 the larger proportion of this expense was met by the economic agencies, but since then nearly all of the requisite funds have been provided by the State.

In view of the fact that the question was one of increasing importance, it would be necessary during 1937 to study more actively the experience of the first years of widespread teaching of Stakhanov's principles, of the technical education of workers, and the period of training of skilled workers for the collective farms, and to draft measures enabling the best possible results to be obtained at the lowest possible cost to the Government.

Yugoslavia.—After consultation with the trade chambers and with the agreement of the Minister of Social Policy, the Minister of Industry and Commerce promulgated an order on May 13, 1936, to fix the ratio of apprentices to skilled workers in commercial, industrial, and handicraft employment.

Housing Conditions

COOPERATIVE HOUSING IN 1936 [1]

THE DEVELOPMENT of cooperative housing in the United States has been thus far almost entirely in the apartment-house field in greater New York and has been restricted by the large amount of capital necessary. In the opinion of one housing expert, a project cannot be made successful in New York City unless it covers at least a city block.[2] With the very large sums involved in such projects and total investments per member ranging up to $700 or more per room, it is evident that comparatively few wage-earner groups would be able to finance such enterprises unaided. Nevertheless several housing associations have been started and have provided accommodations for more than 2,200 families.

It was found that since the Bureau's last previous survey of cooperative housing, in 1933, six associations had lost their properties and had gone out of existence, one had lost its cooperative features, and in two instances two associations had consolidated into one. Six additional associations have been reported to the Bureau of Labor Statistics, but it has not been possible to check as to the cooperative features of these.

Of 48 known housing associations, data were obtained for 39, of which 35 were actually operating housing properties, and in 4 others the organization had been formed and plans were well advanced. Of the 35 completed projects, 12 were in Manhattan and the Bronx and the remaining 23 were in Brooklyn. Of the four projects still under way, two were in New York and the other two were in Wisconsin.

The earliest of the groups (2) for which the Bureau has information dates from 1916. In the following 2 years no new projects were started among the groups that responded to the Bureau's request for information, but beginning in 1919 two projects were undertaken, in 1920 there were six more, four each in 1921, 1922, and 1923, one in 1924, three in 1925, two in 1926, three in 1927, one in 1928, and two in 1930. Thereafter, cooperative activity in the line of new cooperative housing ceased until 1936 when the four new groups were formed.

A number of the early cooperative housing associations drew their

[1] Data obtained by the Bureau of Labor Statistics in the course of a general survey of cooperative associations in the United States.

[2] A. E. Kazan's address at 1936 Congress of the Cooperative League.

membership largely from the building-trades workers. A series of several apartment buildings has been built by needle-trades workers, with the financial assistance of their labor organization. In several other groups the members were "white-collar" or professional people, and in still another the members were drawn from the membership of a cooperative association which operates a chain of cafeterias.

Of the projects now in the planning stage, one will limit its membership to civil-service employees earning less than $4,000 a year and persons recommended by them who are in the same salary class. Another will be composed of professional persons and State employees.

Cooperative Practice and Control

The genuinely cooperative housing enterprise is characterized by the following:

(*a*) Each member has one vote, regardless of the number of shares held.

(*b*) The building is either erected or bought already constructed, by the association (i. e., by the members as a whole), not by individuals who later form an association. This excludes so-called cooperative apartment buildings built by private contractors on a profit basis, the apartments in which are sold outright to individual purchasers.

(*c*) The member does not receive title to any individual apartment or dwelling. He merely owns shares in the association to the value of the dwelling he occupies. His evidence of ownership consists of a certificate of shares and a permanent lease on his dwelling. Legal ownership is held by the association as a whole.

It was found in the present study that all but 3 of the 35 associations, whose plans are completed and which are actually operating properties, follow accepted cooperative practice whereby each member is allowed only 1 vote on administrative decisions. One of the associations in which voting is based on stock ownership is in Manhattan and the remaining two are in Brooklyn. Twenty of the 33 cooperatives which furnished information on proxies stated that such voting is permissible; in the remaining 13 associations—4 in Manhattan and Bronx and 9 in Brooklyn—members must vote in person. Voting membership in 11 of the 12 groups in Manhattan and Bronx totaled 1,746 in 1936. For Brooklyn the voting membership of the 23 groups was 577.

All of the 12 Manhattan and Bronx associations and the 23 Brooklyn projects retain title to the cooperative apartments. As an evidence of ownership, purchasers of dwelling units are furnished with various kinds of papers, such as a contract, membership or stock certificate, pass or rent book, or lease.

In 10 cases in Manhattan and Bronx and 22 in Brooklyn subletting by owners is permitted, but the remaining 3 associations forbid this practice. Where subletting is allowed the association usually specifies that approval of the entire group or the board of directors must first

be obtained. In some associations the member may set his own rate, but in the majority the board fixes the amount of rental, or places restrictions on the rates at which the apartment may be sublet.

Similarly, while members are permitted to sell apartments under the original contracts of purchase, the associations exercise control over the terms of sale by requiring that the group or the board shall approve sales, that the price shall not include a profit, or that the apartment must be offered to the association first. In Manhattan three groups provide for the repurchase of the equity of an individual apartment owner and in Brooklyn seven agree to this practice if permission to sell is refused. Six groups in Manhattan and Bronx and 12 in Brooklyn state that the associations do not obligate themselves to take apartments back and reimburse the owners.

The importance attached to choice of resident managers in the associations' houses is evidenced by the careful methods by which such employees are selected. In Manhattan and Bronx the board makes the choice in 8 cases, the members in 2, and both in 2; in Brooklyn the board chooses managers for 4 projects and the total membership for 19.

Types of Buildings Provided

Altogether the 30 housing associations for which information was obtained on this point provided quarters for 2,248 families. The apartment projects ranged in size from a single building with 8 apartments to a group of several buildings containing 724 dwelling units. The size of the housing properties owned by the various cooperative groups is indicated in the following statement:

Buildings with—	*Number of associations*	Buildings with—	*Number of associations*
8 apartments	2	32 apartments	4
12 apartments	2	35 apartments	1
16 apartments	8	40 apartments	4
19 apartments	1	44 apartments	1
20 apartments	1	67 apartments	1
24 apartments	3	121 apartments	1
		724 apartments	1

Buildings of four stories predominate. In Brooklyn 22 associations out of 23 report buildings of this height. Of the 11 associations in Manhattan and the Bronx supplying data on this point 1 has a 3-story building, 4 have 5-story buildings, another 5- and 6-story buildings, 4 are of the 6-story type, 1 is 6½ stories, and another has a building of 12 stories and penthouse. In Manhattan and the Bronx 6 of the 12 apartments in the buildings of 6 or more stories have elevators. All 23 apartments in Brooklyn are of the walk-up type.

The buildings for which information was supplied concerning number and size of suites have more three- and four-room units than any

other size. Of the 1,709 separate apartments furnished in Manhattan and the Bronx 56 are of 1 room, 223 are of 2 rooms, 786 are of 3 rooms, 488 are of 4 rooms, and 156 have more than 4 rooms. Brooklyn has 539 units ranging in size from 6 two-room suites, to 118 of 3 rooms, 235 of 4 rooms, and 180 of over 4 rooms. Thus in Brooklyn, where only one-third as many units are being occupied cooperatively as in Manhattan and the Bronx, there are 10 percent more large apartments (of over four rooms) than in New York City.

In only one case is a bathroom rated as a room in establishing apartment size, but it is fairly common to include a kitchen as a room. In 9 apartments in Manhattan and the Bronx and 20 in Brooklyn this practice is followed. In two additional cases in Manhattan a kitchenette is figured as a half room and in another as a full room. In two Brooklyn associations the number of rooms is calculated on a space basis, regardless of the use to which the room may be put.

One association in New York City has houses in addition to apartments. The report of its activities shows that the property includes a garden house and three other separate dwellings. Otherwise the dwellings are of the multiple-dwelling type in every instance.

Of the two new Wisconsin groups—neither of which has progressed to the point of actual provision of living quarters for its members—one is in Madison and the other in Milwaukee.

The Madison association was organized in September 1936, and by the spring of 1937 had over a hundred members, composed almost entirely of university people and State employees. It owns 75 acres of land, with an option on an additional 75 acres, about 5 miles from the capitol. Its plans are drawn and it is expected that ground will be broken during 1937. Only about half of the land is to be used for building, the rest being left as communal wooded ground. Both apartments and individual houses are planned. The four-family apartments are expected to cost approximately $3,000 per family and the houses about $10,000 each.

It is the announced purpose of the Milwaukee group to establish, not only one cooperative enterprise, but a complete cooperative community. This might be termed a combination housing and self-help group. It began during the depression under the leadership of a professor of economics who gathered together a number of workers of different skills, most of whom were unemployed at the time. They have worked together with the idea of building themselves a cooperative community, whose members would, however, hold jobs in Milwaukee, except for such persons as the gas-station attendant, the gardener, etc., who would be needed to maintain the community services. This group has completed the building of a house in the suburbs which is worth about $10,000. It will be traded for land on which the village can be built. Pending the construction of the village, this self-help group exchanges services among its members.

Instead of money it uses a system of credits, an hour's work being exchanged for an hour's work. Any credits earned but not spent are counted toward ownership in the house which has been constructed.

Value of Properties

The paid-in share capital for 32 of the 35 projects amounted to over 4 million dollars at the end of 1936, or approximately one-third of the original cost of land and buildings. The appraised value of the properties was slightly over 10 million dollars. The ratio of paid-in share capital to original cost was higher for Brooklyn than for Manhattan and the Bronx. The cost of the Brooklyn apartments was considerably lower than of those in Manhattan and the Bronx, ranging from $23,000 to $230,000 as compared with a range of $49,500 to $3,682,750. In Brooklyn most of the apartment buildings are small, as shown in the membership statistics already given, while in Manhattan and the Bronx the individual buildings house larger numbers of families, thus accounting to a large extent for the higher cost of buildings and land.

Financial statistics covering the value of share capital, original cost of land and buildings, and the appraised value of the properties are shown in table 1.

TABLE 1.—*Investment in Cooperative Housing Associations, 1936*

Location of housing project	Paid-in share capital		Original cost (land and buildings)		Present appraised value (land and buildings)	
	Number of associations	Amount	Number of associations	Amount	Number of associations	Amount
Manhattan and the Bronx	11	$2,875,063	12	$10,062,317	11	$8,386,287
Brooklyn	21	1,211,506	23	2,905,759	23	1,907,500
Total	32	4,086,569	35	12,968,076	34	10,293,787

Operating Statistics

The gross income for 10 apartment houses in Manhattan and the Bronx amounted to $1,035,500 in 1936,[3] and for the 23 Brooklyn projects, $246,141. All but two of the reporting associations in Manhattan and the Bronx either made a profit or broke even after deducting expenses from gross income in that year. In Brooklyn seven associations showed neither profit nor loss, six had a profit, and five reported a loss on the year's operations. Table 2 shows the surplus or deficit resulting from operations of the cooperative housing associations in 1934, 1935, and 1936.

[3] Most of the associations operate on a calendar-year basis, but in some cases fiscal years have been adopted ending in different months. This must be considered in using the financial statistics furnished.

TABLE 2.—*Surplus or Deficit in Operations of Cooperative Housing Associations, 1934 to 1936*

Year and location	Associations having net gain		Associations having net loss		Associations with neither gain nor loss	All associations reporting	
	Number	Amount of gain	Number	Amount of loss		Number	Amount of net gain
1934							
Manhattan and the Bronx	4	$21,056	2	$7,779	3	9	$13,277
Brooklyn	4	999	7	9,866	6	17	[1] 8,867
Total	8	22,055	9	17,645	9	26	4,410
1935							
Manhattan and the Bronx	5	21,285	3	5,931	2	10	15,354
Brooklyn	6	3,751	6	7,286	7	19	[1] 3,535
Total	11	25,036	9	13,217	9	29	11,819
1936							
Manhattan and the Bronx	6	28,360	2	3,338	2	10	25,022
Brooklyn	6	4,801	5	4,975	7	18	[1] 174
Total	12	33,161	7	8,313	9	28	24,848

[1] Loss.

One association which was organized shortly after the onset of the depression went along with its project in spite of the growing hard times. Notwithstanding the peculiarly difficult situation it has achieved a remarkable record. In 1931 it rebated to the members on their rentals the sum of $3,234. In 1933 and again in 1937 it made a general reduction in monthly rental rates. In only 1 year has a loss been sustained on the operations.

The financial position of the housing associations in Manhattan and the Bronx was relatively more favorable in all 3 years covered by table 2 than was that of the organizations in Brooklyn. Only two projects showed a loss in each of the 3 years, 1934 to 1936, in Manhattan and the Bronx, and the balance for all reporting projects was favorable. In contrast, more associations in Brooklyn showed a loss than a profit at the end of 1934. A substantial group operated without a loss or profit in all 3 years. For all reporting associations as a group in Brooklyn the total losses exceeded profits in the 3 years covered, but the annual loss decreased considerably in each successive year and was only $174 at the close of 1936.

Cost to Tenant Member

When the individual becomes a member of a housing society he subscribes for a certain amount of capital stock in the association estimated as covering the cost of the apartment or dwelling he will occupy. This total cost is arrived at after consideration of a number of factors; the total cost of land, building, and other expenses therewith are taken as a basis, and the cost of each dwelling is determined

according to the number of rooms, floor space, location, and other points of advantage or disadvantage. The cost figure so arrived at for each individual apartment is the price which the prospective tenant must pay and the amount for which he must subscribe stock in the association. This stock must be paid for either as a whole or in installments, according to the requirements of the bylaws.

The following tabular statement shows the average total cost per room to members in the societies that reported on this point:

	Number of societies		Number of societies
$75 and under $100	3	$350 and under $400	4
$100 and under $125	1	$400 and under $500	3
$125 and under $150	3	$500 and under $600	3
$150 and under $200	1	$700 and over	1
$200 and under $250	4		
$250 and under $300	2	Total	31
$300 and under $350	6		

Over half the groups show per-room costs of $200 to $400. Of the eight apartments with lower charges, two are in Manhattan and the Bronx and six in Brooklyn. Of the higher-priced apartments, one between $400 and $500 and three at $500 per room are in Manhattan and the Bronx, and the remaining three are in Brooklyn and range in cost from $400 to $787 per room.

Of the 10 Manhattan and Bronx associations that furnished information on the maximum term allowed for full payment of the sales price of apartments, 5 specify cash, 1 allows 8 years, and 2 each provide terms of 10 and 12 years, respectively. In Brooklyn, for 17 associations, immediate payment in full is required in 12 apartments, the term is 1 year in 3, 2 years in 1, and 10 years in 1 project. The initial payments are shown in the following statement:

	Number of associations		Number of associations
$50.06 per share	1	$900	2
$100	3	$900 to $1,500	1
$250	3	$1,000	3
$300	1	$1,000 to $1,200	1
$300 and up	1	$1,100	1
$300 per room	1	$1,200	1
$375	1	$1,200 to $1,600	1
$400 per room	1	$1,200 to $2,000	1
$500	2	$1,250 to $2,000	1
$600	1	$1,300 to $2,200	1
$600 to $1,000	1	$2,000	1
$636	1		

Monthly payments.—After the member takes possession of his dwelling he pays as "rent" each month a certain amount which is calculated to cover his proportionate share of such items as taxes, insurance, the general upkeep of the building (repairs, improvements, janitor service), fuel, payments on the mortgage or mortgages, etc.

In some cases the members adopt the policy of making these monthly payments large enough to cover unexpected expenses, building up a little surplus for this and other purposes. In others such expenses are met as they arise, through a pro-rata assessment on all the tenant members.

Average monthly rental rates per room range, in the associations studied, from $4 to $22.12, as shown in table 3. As the rentals are in most cases lower in Brooklyn than in Manhattan and the Bronx, the figures are given separately for the two localities.

TABLE 3.—*Average Monthly Rental per Room to Members of Cooperative Housing Associations*

Monthly rental per room	Number of associations			Monthly rental per room	Number of associations		
	Manhattan and the Bronx	Brooklyn	Total		Manhattan and the Bronx	Brooklyn	Total
$4		3	3	$8		1	1
$5	1		1	$9		1	1
$6		3	3	$10	1	3	4
$6.18		1	1	$10.50	1	1	2
$6.30		1	1	$11	2	1	3
$6.50		3	3	$12	3	2	5
$6.80	1		1	$22.12	1		1
$7.00		1	1				
$7.15		1	1	Total	10	22	32

For the group as a whole 41 percent of the projects had a rent scale of under $7 per room per month; 44 percent had rents of $10 to $12; and 12 percent from $7 to $9. In Manhattan and the Bronx 80 percent were in the class charging $10 per room per month and over, as compared with 32 percent of the total in Brooklyn. Half of the Brooklyn apartments rented for less than $7 per room per month.

Supplementary Activities

The concentration of families entailed by the very nature of life in a modern apartment building makes possible cooperative activities along other lines as well. Thus, the residents may form their own credit union, undertake the collective purchase of such commodities as ice, milk, electric power and staple groceries, and the provision of such services as lectures, class-room instruction, cleaning and pressing, etc.[4] Of the cooperative housing associations from which data were obtained, seven associations—six in Manhattan and the Bronx and one in Brooklyn—have other features and activities in addition to providing housing. Thus one cooperative provides assembly rooms and playrooms for the children; it also has classes on various subjects.

[4] For a description of the cooperative activities of a group of apartment-house dwellers, see Monthly Labor Review, August 1937 (p. 312).

Another has an auditorium, playroom, a kindergarten, library, and sports club, conducts classes in English, and has social functions. A gymnasium, auditorium, classrooms, social rooms, and a library are features of another organization. One project provides an assembly room, another a garden, and a third a cafeteria and roof garden.

Communal facilities in another apartment project include an assembly room, playrooms, and classes. There are also cooperative grocery, fruit, and meat stores, organized as a separate association. Dental and medical service is available at low cost. Further savings are made from the joint purchase of milk, ice, electricity, and laundry service. During the depression each tenant contributed $1 a month toward a relief fund from which needy members could be supplied medical care. Prior to the depression this group of some 600 families spent about $10,000 a year for community activities alone.

HOUSING IN RELATION TO POPULATION NEEDS

FAMILY size, social and economic forces, and living habits, as well as indications of future population, economic, and social trends, are included as essentials of a scientific approach to a long-range housing program, according to a recently issued study of the New York City Housing Authority.[1]

The existing Government housing projects have been planned chiefly to take care of families with children. This, the report under review believes, meets only a part of the housing requirements, and it is recommended that future dwellings be planned and constructed in proportion to the needs of the population as regards age and family composition. In this way, for example, the parents of children would not forego the advantages of occupying desirable accommodations once their children had left the family home. Instead such parents could find units of the size fitting their needs. A successful housing program would also take into account the normal span of human life. "Housing authorities cannot undertake to provide for a selected static age group or family type", the report states. It adds: "They must plan for the aging adults." With these factors in mind it is advocated that all projects be planned for housing a typical cross-section of the respective communities where they are built. This would tend to reduce tenant turn-over by making it possible to meet the natural recurring changes in the group life. Until such time as there may be an adequate supply of low-rent units or larger sums to spend on rent, families will not occupy more rooms than are warranted by their numbers, and this makes it imperative to plan on the basis of population figures.

[1] New York City Housing Authority. Studies of Community Planning in Terms of the Span of Life, by Catharine F. Lansing. New York, 1937.

The problem is restated in terms of the Williamsburg and Harlem River developments, made possible through Federal Government aid. While the 1930 census of population showed that 30 percent of New York City families consisted of one or two persons and a high proportion of these families lived in low-income areas, only 3 percent of the Williamsburg apartments are two-room units and for Harlem River Houses the percentage of two-room apartments is 10. In Williamsburg, where the tenants selected presumably have two or three children, it will be necessary for large numbers of families to move within 13 years, as the group as a whole will require less space when the children are grown. Continuance of planning of this kind on a large scale, motivated in part by the desire to provide for the families with children, the study here reviewed states, will throw the housing situation out of balance. Future plans should meet the needs of the aged, single persons, and young couples, in order to complement the provision for child care at Williamsburg and Harlem River Houses.

Population statistics, showing an increase in number of families and a decrease in size, should be considered in determining the proportion of two- to four-room apartments to the total. Planners must take into account that urbanization and changes in the national economy tend to reduce family size. Unmarried persons and old people are setting up separate homes to a greater extent than in earlier times. The declining birth rate in large cities, increased longevity, and the reduction of the number of immigrant families with children also contribute to the need for providing housing for the older age group in small separate apartments.

INDUSTRIAL ACCIDENTS IN GREAT BRITAIN, 1928 AND 1935

AN INCREASE of 18 percent in the number of industrial accidents and of 9 percent in fatalities in Great Britain from 1935 to 1936, is noted by the chief factory inspector in his report for the year 1936.[1] The report points out, however, that accident risks have tended to decrease over a period of years, although the continuous increase in the number of young workers injured in the course of employment confirms "the fact that the accidents to juveniles are commonly in higher proportion to the number employed in factories than the accidents to adults are to the number of adult workers employed."

Statistical support for these conclusions is presented by the chief factory inspector in a table showing the accident rate per 100,000 persons employed, in 1928 (where data are available) and in 1935, in selected industries, for workers under and over 18 years of age, by sex. Industries are classified according to the degree of accident hazard. Data on accidents refer to reportable accidents involving 3 or more days of lost time. A modification of this table follows:

Accidents to Minors and Adults per 100,000 Persons Employed in Selected Industries in Great Britain, 1928 and 1935, by Sex

Industry and group	Number employed		Accidents per 100,000 persons employed									
			Male minors		Adult males		Female minors		Adult females		All workers	
	1928	1935	1928	1935	1928	1935	1928	1935	1928	1935	1928	1935
All manufacturing	5,151,000	5,198,000	4,437	4,352	3,670	3,410	1,359	1,414	870	972	2,776	2,642
High accident rates												
Iron and steel	----------	85,000	------	18,505	------	10,719	-----	(1)	-----	(1)	------	11,108
Construction engineering	----------	19,000	------	14,684	------	8,749	-----	(1)	-----	(1)	------	9,585
Shipbuilding	136,000	73,000	9,565	8,513	8,054	7,515	(1)	(1)	(1)	(1)	8,122	7,512
Locomotive building and repairing	48,000	36,000	12,456	12,104	7,884	6,873	-----	-----	-----	-----	8,276	7,341
Metal conversion	----------	46,000	------	5,911	------	7,219	-----	(1)	-----	(1)	------	6,947
Ordnance and munitions	11,000	18,000	12,620	6,955	15,243	7,572	(1)	(1)	(1)	(1)	11,405	6,151
Marine-engine building and repairing	----------	15,000	------	7,550	------	5,296	-----	(1)	-----	(1)	------	5,576
Metal galvanizing, tinning, plating and enameling	22,000	23,000	10,823	6,052	8,658	6,820	2,753	4,274	1,837	2,489	6,640	5,568

[1] Rates not shown where less than 5,000 females were employed.

[1] Great Britain. Home Office. Annual report of chief inspector of factories and workshops for year 1936. London, 1937. (Cmd. 5514.)

Accidents to Minors and Adults per 100,000 Persons Employed in Selected Industries in Great Britain, 1928 and 1935, by Sex—Continued

Industry and group	Number employed		Accidents per 100,000 persons employed									
			Male minors		Adult males		Female minors		Adult females		All workers	
	1928	1935	1928	1935	1928	1935	1928	1935	1928	1935	1928	1935
Average accident rates												
Gas works	59,000	53,000	1,880	2,716	3,818	6,640	(1)	(1)	(1)	(1)	3,739	3,541
Woodworking		122,000		3,830		3,406		(1)		(1)		3,386
Light metal trades		140,000		6,046		3,082		3,935		2,531		3,344
Automobiles, bicycles, carriages, etc		288,000		3,370		2,882		3,188		3,020		2,955
Paper, cardboard, etc	63,000	77,000	3,985	4,415	3,984	3,874	1,494	955	918	893	3,056	2,919
Machinery		98,000		4,230		2,404		(1)		(1)		2,620
Electrical engineering	152,000	197,000	3,763	4,320	2,968	3,011	2,197	1,451	1,483	1,348	2,671	2,582
Flour and other milling	37,000	36,000	2,054	2,356	1,687	2,854	817	597	593	712	1,508	2,452
Low accident rates												
Textiles	1,027,000	894,000	2,942	2,698	1,905	2,035	1,309	1,250	878	985	1,353	1,436
Pottery	69,000	72,000	1,199	1,790	1,637	1,758	829	1,100	509	495	1,055	1,175
Baking	109,000	134,000	944	1,600	1,036	1,191	599	830	515	894	831	1,089
Boots and shoes		127,000		2,160		1,104		894		452		992
Tobacco and matches	42,000	36,000	2,350	1,627	2,403	1,701	828	572	529	607	1,098	907
Letterpress and lithographic printing and binding		216,000		1,367		879		1,032		524		851
Tailoring		164,000		969		426		699		385		473
Laundry	104,000	133,000	970	813	1,124	931	392	481	294	328	424	457
Garment and millinery		219,000		1,191		658		573		290		431

[1] Rates not shown where less than 5,000 females were employed.

PITHEAD BATHS IN GREAT BRITAIN

PRACTICAL assurance has been given by the Secretary for Mines of Great Britain to the Miners' Welfare Committee that the program of providing pithead baths through the Miners' Welfare Fund,[1] which has been in progress for several years, can be maintained for the next 8 years, and that £625,000 a year will be available for the purpose for that length of time.[2]

At that rate of annual expenditure on new pithead-bath installations it would be possible, according to estimates, to keep pace with the known demand for the 5-year period 1937–41. At the close of that period pithead-bath accommodations would be available for approximately 500,000 mine workers. If thereafter the building program can be extended over an additional 3 years, the Miners' Welfare Committee feels that the installation of pithead baths throughout Great Britain would be "virtually complete * * * except for small collieries, those with very short lives, and those where baths are not wanted or cannot be built owing to technical difficulties."

The committee in its report for 1936 points out, however, that the need for bathing facilities is as urgent in the small mines as it is in

[1] See Monthly Labor Review, May 1935 (p. 1208): Miners' Welfare Activities in Great Britain.

[2] Great Britain. Mines Department. Fifteenth annual report of the Miners' Welfare Committee, 1936. London, 1937.

large plants. Small installations present special problems and requirements, but "experiments are continuing" and experience in equipping small workings is being built up to meet the needs of a large number of such mines that will have "to be dealt with sooner or later."

Status at Close of 1936

At the end of 1936 the Miners' Welfare Fund had provided for 225 pithead baths and met most of the cost of an additional 16. Of the 225 referred to, 184 were completed and in use and 41 were in course of construction. During 1936, 31 new installations were completed and money was allocated for 10 baths to be built in 1937. Pithead baths now in operation built wholly or mainly with Miners' Welfare Fund money accommodate 254,104 men and 366 women.

At some mines, according to the committee's report, the accommodations provided by the fund "are used by every workman employed." The average percentage of users of the baths has risen each year, and in 1936 "was no less than 92 percent", a proportion of a mining community which, the report states, is reached by few other welfare undertakings.

In that connection the committee points out that new housing activities have stimulated rather than decreased the use of the pithead baths, because, "although the new houses have baths, the miners and their wives are all the more determined to keep the pit dirt out of the home."

Labor Laws

NATIONAL CONFERENCE ON LABOR LEGISLATION, 1937

ADMINISTRATION and enforcement of the large body of labor laws recently enacted throughout the United States were given special emphasis during the course of the Fourth National Conference on Labor Legislation held in Washington, D. C., October 25–27, 1937. The conference was called by the Secretary of Labor and was attended by representatives of the Governors of all but three States. Those in official attendance included a large delegation of State labor commissioners, assistant commissioners (including the assistant commissioner of labor of Puerto Rico), factory inspectors, and other State labor-department officials, members of unemployment compensation and workmen's compensation commissions, and representatives of State federations of labor. Others in attendance represented related groups such as the American Association for Labor Legislation, the National Child Labor Committee, the American Federation of Labor, and the International Labor Organization, and Federal agencies outside the Department of Labor that are concerned with labor.

Outstanding gains in State labor legislation since the preceding conference was held [1] were reported by a number of State representatives, and a general summary of progress in that field since 1933 was presented by the Secretary of Labor.

Several of the recommendations and resolutions dealing with desired State and Federal legislation adopted by previous conferences were restated. These included resolutions calling for a State system of apprenticeship throughout the country, administered by the State labor departments, with the cooperation of the State federations of labor and local advisory councils; the elimination of industrial home work by the adoption of State laws of the prohibitory type, supported by Federal legislation regulating interstate commerce in articles of home manufacture; and a reiteration of the declaration of previous conferences on child labor and State and Federal legislation designed to control it. In that connection the Fourth National Conference went on record "as strongly opposing the inclusion in a Federal child-labor law of provisions, based on the prison-made goods method of regulation, forbidding the shipment of child-made goods into a State

[1] See Monthly Labor Review, December 1936 (p. 1438) for report on the Third National Conference on Labor Legislation, Nov. 9–11, 1936.

which has forbidden the sale of such goods." This method of regulation, it was stated, would require the enactment of new legislation in every State, and its enforcement "presents insurmountable difficulties." Calling attention to the fact that constitutional amendments dealing with child labor "have been proposed in Congress and elsewhere and have obtained some degree of public support" in spite of serious weaknesses, the conference urged the ratification of the child-labor amendment now before the country for adoption.

Federal Wage and Hour Regulation

In a letter to the delegates to the conference, President Roosevelt said:

> I have called a special session of Congress to enact, among other things, a wage and hour bill which I hope will supplement and strengthen your legislation in behalf of workers. In the administration of the Federal legislation we shall need your active participation so that by joint effort we may develop a fuller protection to the workers of the country than either the Federal Government alone or the States could achieve in their respective jurisdictions.

The conference in a resolution declared its support of legislation, as proposed by the President, "having for its purpose the fixing of minimum standards of wages and maximum hours of labor of employees in industries whose products enter interstate commerce." The conference held that "the method of State enactment alone has proved inadequate" and expressed the belief that the proposed Federal action would provide "an essential basic underpinning to a sound social and economic structure", and "encourage the enactment of supplementary measures by the States." The conference also recommended that the scope of the proposed legislation be extended to include "provisions which will eliminate the products of child labor and industrial home work from interstate commerce," and that the act be administered by the United States Deprtment of Labor "with participation and cooperation of State labor departments."

Labor Law Administration

Except in the Federal field, the year 1938 offers little opportunity for further progress in labor legislation, as few State legislatures will be meeting in regular session. The conference, accordingly, directed its attention to administration and enforcement problems that have accompanied the rapid adoption of regulatory laws. The agenda was designed to bring out discussion of effective methods of administration, the problems and difficulties involved in securing adequate personnel and appropriations, and the best means of educating employers and public as well as staff to insure successful administration and enforcement. The growing body of complementary Federal and State labor laws, to which the Secretary of Labor referred in her

opening address, presents peculiar problems, since in the administration of any Federal law equal enforcement in all States is essential. In the cooperative relations necessary to secure that equality, the Secretary held that State labor departments must have a determining part.

Several States, among them Michigan, Connecticut, Pennsylvania, and North Carolina, reported that substantial increases in appropriations had been made to the State labor departments. In the discussion on securing and training efficient staffs for the many technical activities of a State department of labor, several commissioners expressed a pronounced preference for persons whose training has been in industry rather than in schools. In setting up qualifications for technical inspectors such as boiler and elevator inspectors, some State laws require actual experience for a specified period of time. In these circumstances, according to some of the commissioners who addressed the conference, the best recruits may be obtained through trade-unions. Problems of tenure, the requirements of civil-service systems, and acceptable substitutes for a civil-service merit system were discussed and experience in various jurisdictions was compared.

Problem of the Older Worker

It is the practice for each successive national conference on labor legislation to introduce a new topic for consideration. The conference of 1937 took up for the first time the growing problem of discrimination against the older worker in the matter of job opportunity and job tenure. After touching briefly upon surveys that have been made to determine the extent of the problem, and upon a few isolated efforts to check an apparent trend, the Secretary of Labor expressed the belief that education rather than legislation was needed to break down misinformation and prejudices, and that conferences with fair and intelligent employers would seem at the present time to be the best method of handling the problem. Instances of known discrimination against large numbers of middle-aged workers were reported, and several speakers placed the responsibility upon the policies and practices of insurance companies rather than upon the preferences and prejudices of employers. The conference, declaring that the extent to which age is becoming a factor in securing and retaining employment is "creating a serious national, social, and economic problem," adopted a resolution requesting the Secretary of Labor to undertake, and Congress to appropriate sufficient funds for, a study of the problem of the older worker and its causes. The Secretary was requested "to appoint a representative national advisory committee to help plan such a study, review the findings, and draft a program of practicable measures designed to break down existing age barriers."

LABOR LEGISLATION CONSIDERED BY AMERICAN BAR ASSOCIATION

THE ANNUAL meeting of the American Bar Association held at Kansas City, Mo., during the week of September 27, 1937, considered a number of subjects of interest to labor. These included occupational-disease legislation, child labor, industrial accidents, and social security.

The Federal child-labor amendment again received attention. One group considered the subject outside the jurisdiction of the association, and it was voted to table further deliberations. Later, however, the house of delegates, which was recently created as the principal policy maker of the association, decided to submit the matter to a referendum of the membership, both as regards the pending Federal child-labor amendment and other proposed constitutional amendments, and as regards consideration of any and all Federal and State legislation seeking the protection of children in industry.

A sectional meeting on insurance law considered several subjects in this field. Of particular interest was the group discussion on occupational diseases under the workmen's compensation law. From the administrative point of view, two speakers considered the subject—Peter J. Angsten, chairman, Industrial Commission of Illinois, and J. Dewey Dorsett, of the North Carolina Industrial Commission. Special attention was given by these speakers to the schedule plan of compensating for occupational diseases as matched with the unlimited coverage of such diseases. The third speaker, Henry D. Sayer, of New York, referred to several recent decisions of the courts in New York in which awards of compensation had been made for alleged occupational diseases not generally considered as such. Mr. Thomas N. Bartlett, of Maryland, considered accrued liability under the compensation acts and stressed the need of more preventive measures to allay the ravages of occupational diseases. The published report of the committee on workmen's compensation contains a résumé of recent occupational-disease legislation and court decisions.

SKIN INFECTION HELD COMPENSABLE

IN A RECENT case (*Bearor's case*, 193 Atl. 923) the Supreme Judicial Court of Maine held that a skin infection caused by oil and grease coming into contact with an abrasion was compensable.

Lugie Bearor was employed by the American Woolen Co. as a mule fixer. His principal work was to repair machinery, in which work he handled tools such as wrenches, and from time to time received bruises and abrasions on his hands. As a result of the contact of oil, grease, and dirt with such abrasions, he suffered from a skin infection.

He filed a claim for compensation with the industrial accident commission, alleging that the skin infection which had incapacitated him was an injury arising out of and in the course of his employment. The commission awarded compensation and the employer appealed to the supreme judicial court.

The insurance carrier claimed that there was nothing in the evidence to show an accident arising out of and in the course of the employment, and that the skin infection was in effect an occupational disease. The defense was based on the theory that, because the employee was unable to tell with exactness just when the particular bruise or abrasion was suffered, because such slight injuries were received almost daily, and because the injury in question was dismissed by him when received as trifling, it was therefore a mere incident of his employment and not an "accident" as that term is generally understood.

The court did not agree with this contention and said:

> There was sufficient evidence to warrant the commissioner in finding that the dermatitis from which the employee suffered was caused by the entry of bacteria through an abrasion on his hand. Such was the opinion of Dr. Towne. That the abrasion itself was of such small consequence that he cannot remember the exact time when it was received is unimportant, if the evidence shows a causal connection between an abrasion and an infection received in the course of his work.

After quoting from the case of *Brintons, Ltd.*, v. *Turvey*, A. D. 1905, 230, which was cited with approval in *Brodin's case*, 124 Me. 162, 167; 126 A. 829, the court said:

> So in the case before us it was the entry of a germ through an abrasion on a man's hand, which abrasion was itself suffered in the course of his employment, that caused his incapacity. That germ was carried in the oily wool or waste which the employee had occasion to handle.

The court then remarked that in *Brodin's case* the claimant contracted typhoid fever from drinking contaminated water furnished by his employer. This was held to be a personal injury by accident arising out of and in the course of the employment, and accordingly compensable. "It is hard to see any distinction between the entry of typhoid bacteria through the mouth as in *Brodin's case*, of the bacillus of anthrax as in *Brintons, Ltd.*, v. *Turvey*, or of the particular germ as in the case before us through a break in the skin."

For these reasons, the court reached the conclusion that the infection was an injury and not an occupational disease and affirmed the decree of the industrial accident commission.

ILLNESS RESULTING FROM DRAFT FROM ELECTRIC FAN HELD COMPENSABLE

AN UNUSUAL CASE involving workmen's compensation was recently decided by the Court of Appeals of New York (*Lurye* v. *Stern Bros. Department Store et al.*, 9 N. E. (2d) 828). In this case the court held that "Bell's palsy", contracted by a saleswoman in a department store from a draft from an electric fan, was an accidental injury and therefore compensable under the workmen's compensation law.

Fannie Lurye was employed as a saleswoman in Stern Bros. Department Store. On October 15, 1932, while engaged in showing coats to a customer, a fellow employee switched on an electric fan, which caused a draft to blow upon her, giving her a chill. This brought about Bell's palsy, as a result of which she became disabled. She thereupon filed a claim for compensation.

The referee granted compensation. However, the State industrial board dismissed the claim on the ground that the disease was not due to an accident, and its decision was affirmed by the appellate division of the supreme court. From this decision the claimant appealed to the court of appeals.

The claim was dismissed by the State industrial board on the authority of a case previously decided by the New York Court of Appeals (*Matter of Lerner* v. *Rump Brothers*, 241 N. Y. 153, 149 N. E. 334, 41 A. L. R. 1122). In that case the finding was that the employee, while working at his employer's plant, showing fruit and vegetables to a customer in the refrigerator, and "because of the sudden transition from the superheated atmosphere on the outside of said refrigerating plant to the chilly atmosphere in the interior thereof, and as his duties necessitated his remaining in said refrigerator for 10 minutes, he received a chill that naturally and unavoidably caused a cold to develop which lowered his disease-resisting power, and as a result, pulmonary edema and cerebral embolism and septic endocarditis developed and caused his death on November 22, 1923; the proximate cause

of death being the injury that he received in the refrigerator of his employer's plant on June 2, 1923." It was there held that the facts so found did not make out a case of disease which could be classified as an accident within the fair meaning of the statute.

In this case the court agreed that "we have here the same circumstances of contact with cold air at a definite time and place resulting in disease, with nothing out of the ordinary either in the claimant's work or condition of health." "But there", the court said, "the likeness ends."

In the *Lerner case* the employee passed from a hot room into a cold one. The specific result was something that was almost as likely to occur as not. What was presented was "a case of ordinary exposure resulting in a cold." The court said:

> In the case at hand the claimant was struck by air propelled by the fan. The result was "palsy which is limited to one side of the face and is acute in onset and called Bell's"—with consequent distortion of the parts and of the powers of expression. We think the average man would say that so swift and harsh a disablement was an accidental injury when it was so strangely suffered in the ordinary day's work.

In finding that the disablement was the result of an accident, the court quoted from *Matter of Connelly* v. *Hunt Furniture Co.*; 240 N. Y. 83, 87, 147 N. E. 366, 368, in which case it was said: "Sunstroke, strictly speaking, is a disease, but the suddenness of its approach and its catastrophic nature have caused it to be classified as an accident."

The court therefore reversed the order of the appellate division and the determination of the State industrial board, and ordered that the award originally made granting compensation be reinstated.

TUBERCULOSIS HELD TO BE AN OCCUPATIONAL DISEASE

IN A RECENT CASE decided by the appellate division of the Supreme Court of New York (*Bishop* v. *Comer & Pollock, Inc., et al.*, 297 N. Y. S. 946), it was held that pulmonary tuberculosis contracted by a meat-market clerk in the course of his employment was an occupational disease. Mr. Justice Hill delivered the opinion of the court. Mr. Justice Bliss wrote a concurring opinion, while Justices McNamee and Crapser dissented.

John Bishop was employed as a counterman and clerk in a wholesale meat market. He worked in a normal temperature, but from 10 to 30 times a day entered the cold-storage room where the meat was kept. On June 30, 1936, he suddenly became ill. He had previously noticed a cough, which started in the spring of the year, and in the latter part of June he started to cough up blood. He then visited his doctor, who told him that he was suffering from tuberculosis. He filed a

claim for disability compensation under the workmen's compensation law, stating that he was suffering from an occupational disease. The referee held that tuberculosis was not an occupational disease and disallowed the claim. The State industrial board denied an application to review this decision of the referee, and the claimant appealed to the appellate division of the State supreme court.

The workmen's compensation law of New York, as amended in 1935 (ch. 254), provides as follows: "If an employee is disabled * * * and his disability * * * is caused by one of the diseases mentioned in subdivision 2 of section 3, and the disease is due to the nature of the corresponding employment as described in such subdivision in which such employee was engaged and was contracted therein, he * * * shall be entitled to compensation for * * * the duration of his disablement." Subdivision 2 of section 3 authorizes compensation for specified occupational diseases and (in par. 28) for any and all occupational diseases, and lists certain industries in which compensation for such diseases must be given.

The State industrial board in its ruling stated as a matter of law: "This claim does not come within the provisions of the workmen's compensation law", and the chairman wrote to the claimant's attorney: "Tuberculosis to be covered as an occupational disease must be peculiar and characteristic to the employment."

In connection with this statement, Mr. Justice Hill said:

> Claimant's disease was "due to the nature of" his employment. There was direct causal connection between the conditions under which he worked and the tuberculosis which he contracted. It followed as a natural incident from his exposure, according to the undisputed evidence. The employment was the proximate cause of the illness. If a disease is due to the nature of the employee's work, it is not necessary that it could have been foreseen; it is enough that it originated in and on account of the employment.

In considering the question of whether the tuberculosis suffered by the claimant was an occupational disease "peculiar and characteristic" to the employment, the court discussed both accidental injuries and occupational diseases as follows:

> Compensation is awarded for accidental injuries which arise out of and in the course of the employment. The greatest hazard in a sawmill doubtless would be the danger of being cut by the buzz saw, but compensation is paid for an injury received in falling downstairs, which would not be "characteristic" of employment in a sawmill. By the same token, it is not necessary to show that the disease was "peculiar to or characteristic of" the employment. It is enough if it appears that an employee was disabled by a disease which he suffered because of the nature of his employment in the event it is one of those enumerated in subdivision 2 of section 3. A perusal of the list of hazardous employments there enumerated discloses that there are no diseases peculiar to or characteristic of hundreds of them. The legislature, after listing 27 diseases peculiar to particular occupations, enacts the all-inclusive paragraph, and, as earlier quoted, section 39 provides that, when an employee is disabled by a disease due to the nature of the employment, he shall be compensated.

Finally, in holding that tuberculosis in this case was an occupational disease, Mr. Justice Hill said:

> Paragraph 28 (ch. 254, Laws 1935) was enacted to place disability arising from a disease contracted in the course of the employment and caused thereby on the same plane with disability following an injury. It is salutary and wise legislation, its scope should not be limited. Each argument that sustains the wisdom of and the necessity for compensation for loss of wages because of an accidental injury arising out of an employment sustains compensation for loss of wages because of a disease due to the nature of the employment.

The court therefore reversed the decision of the State industrial board.

A dissenting opinion was delivered by Mr. Justice McNamee. It was his opinion that the decision of the State industrial board should be affirmed, on the ground that tuberculosis is not peculiar to nor characteristic of meat markets.

Mr. Justice McNamee did not agree with the view of the prevailing justices that sections 39 and 40 of the workmen's compensation law deal generally with occupational disease. "They do deal with the extent of compensation payable when an occupational disease, as prescribed in subdivision 2 of section 3, has been established, as herein indicated", he said: "but they do not in any degree determine when such a disease is present, nor of what an occupational disease consists, except by reference to section 3."

The only question necessary to decide, according to Mr. Justice McNamee was whether the claimant contracted an occupational disease in the meat market in which he was employed. He defined an occupational disease as a disease "contracted in the usual and ordinary course of a trade, occupation, or employment, and which is due to causes normally present in such pursuit in excess of the hazards of employment generally, and which from our common experience has been found to be peculiar to and characteristic of the nature of the work performed." In this connection, he said:

> No doubt a case of tuberculosis sometimes occurs in a meat market, or other hazardous employment; but that does not classify it as an occupational disease. It would not be so if a thousand cases occurred there; because a thousand other cases may occur also in each of a thousand other employments, or in no employment. Doubtless as many cases have occurred among housewives as among those of any other pursuit. But, if the cause of the infection is not traceable to the work in question, so that it could be said that the nature of the work, in se, usually produces the poisonous germ or usually transmits it, it is not an occupational disease. The mere infection of a person engaged in a meat market does not render his disease occupational, any more than blood poisoning from stepping on a rusty nail, broken arms from falling off roofs, ladders, or scaffolds constitute occupational diseases of carpentry. But they often happen.

Finally, in holding that the claimant was not entitled to compensation, Mr. Justice McNamee stated that the record was wholly barren of any evidence that tuberculosis is peculiar to or characteristic of meat markets or employees of meat markets, or that such employees are

commonly or even frequently infected by the disease. "There is no evidence", he said, "that the disease inheres in the work of meat markets, or even that work in-and-out of coolers, cold-storage plants, ice houses, or similar places is the source or cause of tuberculosis." However, a majority of the Justices declared otherwise.

Industrial Disputes

TREND OF STRIKES

WHILE there were more new strikes in September 1937 than in any previous September since 1919 there was a substantial decline in strikes as compared with the preceding 6 months of 1937. There were fewer strikes in September, fewer workers involved, and fewer man-days of idleness because of strikes than in any month since February of this year.

Trend of Strikes, January 1936 to September 1937 [1]

Year and month	Number of strikes					Workers involved in strikes		Man-days idle during month or year
	Continued from preceding month	Beginning in month or year	In progress during month	Ended in month	In effect at end of month	Beginning in month or year	In progress during month	
1936								
Total for year	-------	2,172	-------	-------	-------	788,648	----------	13,901,956
January	84	167	251	149	102	32,406	59,153	635,519
February	102	148	250	131	119	63,056	89,735	748,491
March	119	185	304	174	130	75,191	122,162	1,331,162
April	130	183	313	179	134	65,379	95,526	699,900
May	134	206	340	219	121	72,824	123,030	1,019,171
June	121	188	309	158	151	63,429	133,531	1,327,678
July	151	173	324	197	127	38,017	125,281	1,105,480
August	127	228	355	210	145	68,752	118,268	911,216
September	145	234	379	236	143	65,994	130,875	1,063,100
October	143	192	335	219	116	100,845	148,570	1,053,878
November	116	136	252	126	126	70,116	157,007	1,940,628
December	126	132	258	158	100	72,639	184,859	2,065,733
1937								
January	100	169	269	131	138	107,587	213,234	2,705,711
February	138	207	345	203	142	112,476	238,899	1,515,555
March	142	600	742	502	240	286,297	353,265	3,258,887
April	240	504	744	481	263	217,467	385,258	3,310,221
May	263	549	812	505	307	320,280	435,762	2,905,505
June	307	568	875	545	330	280,628	470,836	4,934,905
July	330	400	730	466	264	139,976	347,814	3,074,901
August [1]	264	415	679	409	270	150,000	245,000	2,275,000
September [1]	270	345	615	370	245	105,000	185,000	1,400,000

[1] Strikes involving fewer than 6 workers or lasting less than 1 day are not included in this table, nor in the following tables. Notices or leads regarding strikes are obtained by the Bureau from more than 650 daily papers, labor papers, and trade journals, as well as from all Government labor boards. Letters are written to representatives of parties in the disputes asking for detailed and authentic information. Since answers to some of these letters have not yet been received, the figures given for the late months are not final. This is particularly true with regard to figures for the last 2 months, and these should be considered as preliminary estimates.

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Preliminary estimates of strikes in September, as compared with those for August, indicate reductions in September of 17 percent in number of strikes, 30 percent in number of workers involved, and 38 percent in man-days of idleness. A comparison of September figures with corresponding data for September 1936, however, shows increases this year of 47 percent in number of strikes, 59 percent in number of workers involved, and 32 percent in man-days of idleness.

The preliminary estimates for August and September are based on newspaper reports and the partial information available as this report goes to press. An analysis of strikes in August, based on detailed and verified information, will appear in the December issue of the Monthly Labor Review and a similar report on strikes in September will appear in the January 1938 issue.

ANALYSIS OF STRIKES IN JULY 1937 [1]

NEARLY 140,000 workers were involved in the 400 strikes which began in July. There were 330 strikes which continued into July from preceding months, making a total of 730 strikes in progress during the month, in which nearly 348,000 workers were involved. These strikes caused more than 3,000,000 man-days of idleness during July.

Comparisons of July strike figures with those for past years show that there were more new strikes than in July of any year since 1917. There were more workers involved, however, in the strikes beginning in July 1933 and 1934 than in 1937. There were more man-days of idleness because of strikes during the month than in any July since 1927, the first year for which comparable data are available.

Seventy percent of the 400 strikes beginning in July were in eight industry groups, distributed as follows: Trade 58, domestic and personal service 41, textiles 40, transportation and communication 35, building and construction 31, lumber industries 27, food 26, and machinery manufacturing 22. Strikes in the steel industry included almost one-fourth of the total number of workers involved in all strikes during the month and accounted for 13 percent of the total man-days of idleness. This was largely due to the strike against four independent steel companies which began in May and was still in effect during July. A considerable number of workers were involved in the strikes in progress during the month in shipbuilding, women's clothing, bituminous-coal mining, motortruck transportation, and retail trade.

[1] Detailed information on a few strikes has not yet been received. (See footnote to preceding table.) Data on missing strikes will be included in the annual report.

TABLE 1.—*Strikes in July 1937, by Industry*

Industry	Beginning in July		In progress during July		Man-days idle during July
	Number	Workers involved	Number	Workers involved	
All industries	**400**	**139,976**	**730**	**347,814**	**3,074,901**
Iron and steel and their products, not including machinery	**10**	**4,503**	**47**	**106,043**	**553,056**
Blast furnaces, steel works, and rolling mills	2	70	10	93,220	403,582
Bolts, nuts, washers, and rivets			4	1,395	14,471
Cast-iron pipe and fittings			1	150	2,400
Cutlery (not including silver and plated cutlery) and edge tools			1	456	6,043
Forgings, iron and steel	1	894	1	894	13,410
Hardware	1	45	1	45	585
Plumbers' supplies and fixtures	1	480	5	908	8,550
Steam and hot-water heating apparatus and steam fitting			1	250	6,750
Stoves	1	200	7	3,333	55,319
Structural and ornamental metalwork	2	490	4	1,246	9,690
Tin cans and other tinware	1	2,300	5	3,152	13,513
Wirework	1	24	4	399	5,651
Other			3	595	13,092
Machinery, not including transportation equipment	**22**	**4,638**	**39**	**7,058**	**57,621**
Electrical machinery, apparatus, and supplies	8	770	11	1,020	15,679
Foundry and machine-shop products	10	2,321	15	2,671	15,241
Machine tools	1	229	1	229	4,809
Radios and phonographs	1	540	2	1,440	5,760
Other	2	778	10	1,698	16,132
Transportation equipment	**7**	**2,858**	**12**	**18,683**	**321,337**
Automobiles, bodies, and parts	6	2,708	10	3,533	46,087
Shipbuilding			1	15,000	273,000
Other	1	150	1	150	2,250
Nonferrous metals and their products	**6**	**1,284**	**21**	**9,142**	**77,001**
Aluminum manufactures	1	45	2	3,170	22,010
Brass, bronze, and copper products			2	239	2,887
Jewelry	1	135	1	135	1,485
Silverware and plated ware	1	11	1	11	154
Smelting and refining—copper, lead, and zinc			2	2,303	6,059
Stamped and enameled ware	2	558	7	2,416	33,149
Other	1	535	6	868	11,257
Lumber and allied products	**27**	**3,295**	**62**	**15,504**	**220,317**
Furniture	10	1,544	22	4,392	66,993
Millwork and planing	11	920	15	3,059	28,489
Sawmills and logging camps			9	5,156	94,566
Other	6	831	16	2,897	30,269
Stone, clay, and glass products	**8**	**2,943**	**15**	**3,498**	**43,988**
Brick, tile, and terra cotta	3	2,154	5	2,291	34,671
Cement	3	593	3	593	3,857
Glass	1	64	4	229	2,861
Marble, granite, slate, and other products	1	132	1	132	132
Pottery			1	73	1,387
Other			1	180	1,080
Textiles and their products	**40**	**22,851**	**102**	**48,599**	**523,443**
Fabrics:					
Cotton goods	2	550	8	2,290	23,225
Dyeing and finishing textiles			1	50	600
Silk and rayon goods	3	578	11	2,786	45,446
Woolen and worsted goods	4	1,422	12	5,533	112,432
Other	3	214	12	3,819	40,446
Wearing apparel:					
Clothing, women's	12	16,448	21	20,155	128,069
Corsets and allied garments	1	1,023	1	1,023	1,059
Men's furnishings	1	37	1	37	74
Hats, caps, and millinery	2	370	4	1,955	20,425
Shirts and collars	2	910	3	990	7,724
Hosiery	3	311	13	5,170	87,212
Knitgoods	4	195	8	3,149	38,032
Other	3	793	7	1,642	18,699
Leather and its manufactures	**13**	**1,876**	**24**	**4,100**	**53,212**
Boots and shoes	5	433	7	1,389	12,673
Leather	4	888	11	1,751	26,421
Other leather goods	4	555	6	960	14,118

TABLE 1.—*Strikes in July 1937, by Industry*—Continued

Industry	Beginning in July		In progress during July		Man-days idle during July
	Number	Workers involved	Number	Workers involved	
Food and kindred products	**26**	**5,949**	**45**	**10,346**	92,186
Baking	11	1,041	17	1,396	12,437
Beverages	1	300	3	661	7,822
Butter	1	43	1	43	86
Canning and preserving	3	655	7	3,649	38,017
Confectionery	1	207	3	312	2,853
Flour and grain mills	1	20	2	44	1,848
Slaughtering and meat packing	5	2,592	6	2,962	25,308
Sugar refining, cane	1	1,066	1	1,066	2,132
Other	2	25	5	213	1,683
Tobacco manufactures	**2**	**309**	**7**	**790**	11,058
Cigars	2	309	6	610	10,158
Other			1	180	900
Paper and printing	**16**	**1,392**	**27**	**2,903**	36,068
Boxes, paper	2	61	5	490	9,233
Paper and pulp	4	718	4	718	2,620
Printing and publishing:					
Book and job	4	117	5	581	12,769
Newspapers and periodicals	3	112	5	136	2,344
Other	3	384	8	978	9,102
Chemicals and allied products	**11**	**2,681**	**17**	**4,451**	54,610
Chemicals	1	55	3	114	1,498
Paint and varnishes	4	1,126	5	1,301	16,142
Rayon and allied products			2	1,332	28,380
Soap	1	98	1	98	1,568
Other	5	1,402	6	1,606	7,022
Rubber products			**2**	**382**	3,148
Other rubber goods			2	382	3,148
Miscellaneous manufacturing	**10**	**1,143**	**24**	**5,919**	53,880
Electric light, power, and manufactured gas			1	246	300
Broom and brush			1	17	272
Furriers and fur factories	1	250	3	2,377	6,266
Other	9	893	19	3,279	47,042
Extraction of minerals	**9**	**25,678**	**19**	**37,213**	352,721
Coal mining, anthracite	3	7,195	3	7,195	87,813
Coal mining, bituminous	5	18,033	10	29,079	250,259
Metalliferous mining	1	450	3	548	5,792
Quarrying and nonmetallic mining			1	270	7,290
Other			2	121	1,567
Transportation and communication	**35**	**29,121**	**43**	**30,759**	133,231
Water transportation	13	1,651	13	1,651	7,909
Motortruck transportation	14	26,950	17	27,968	106,501
Motorbus transportation	3	126	4	147	953
Taxicabs and miscellaneous	4	374	6	677	9,912
Steam railroad			1	260	7,020
Telephone and telegraph			1	36	756
Radio broadcasting and transmitting	1	20	1	20	180
Trade	**58**	**9,834**	**91**	**14,744**	195,281
Wholesale	12	2,124	18	2,853	52,032
Retail	46	7,710	73	11,891	143,249
Domestic and personal service	**41**	**5,463**	**60**	**12,096**	163,915
Hotels, restaurants, and boarding houses	16	574	27	5,777	97,258
Personal service, barbers, beauty parlors	2	260	4	777	1,977
Laundries	16	1,369	18	1,557	17,956
Dyeing, cleaning, and pressing	3	3,112	6	3,769	45,398
Elevator and maintenance workers (when not attached to specific industry)	3	140	4	208	1,278
Other	1	8	1	8	48
Professional service	**4**	**209**	**5**	**299**	3,485
Recreation and amusement	3	99	4	189	2,385
Semiprofessional, attendants, and helpers	1	110	1	110	1,100
Building and construction	**31**	**5,798**	**41**	**6,880**	70,186
Buildings, exclusive of P. W. A.	21	4,972	26	5,513	49,807
All other construction (bridges, docks, etc., and P. W. A. buildings)	10	826	15	1,367	20,379
Agriculture and fishing	**1**	**13**	**1**	**13**	13
Fishing	1	13	1	13	13
W. P. A., relief, and resettlement projects	**9**	**7,241**	**9**	**7,241**	48,322
Other nonmanufacturing industries	**14**	**897**	**17**	**1,151**	6,822

Nearly 40 percent of the strikes beginning in July were in New York and Pennsylvania. There were 84 and 69 in these States respectively. California experienced 25 new strikes during the month, Ohio 21, Michigan 19, and Massachusetts and New Jersey 18 each. This group of States, with the addition of Illinois and Tennessee, as shown in table 2, were the ones with the greatest number of workers involved and man-days idle during the month.

Thirteen of the 730 strikes in progress during July extended into two or more States. The largest of these was the steel strike, referred to above, which affected workers in Illinois, Indiana, Maryland, Michigan, New York, Ohio, and Pennsylvania.

TABLE 2.—*Strikes in July 1937, by States*

State	Beginning in July		In progress during July		Man-days idle during July
	Number	Workers involved	Number	Workers involved	
All States	400	139,976	730	347,814	3,074,901
Alabama	3	1,246	7	1,869	16,451
Arkansas	2	205	4	318	2,391
California	25	2,981	39	7,727	118,250
Colorado	3	730	4	745	3,647
Connecticut	3	1,200	8	2,042	24,089
Delaware	1	30	1	30	60
District of Columbia	3	991	4	1,441	9,924
Florida	5	540	5	540	2,667
Georgia	3	200	3	200	404
Illinois	10	17,454	24	21,799	115,295
Indiana	15	4,221	22	5,344	46,780
Iowa	5	113	8	258	2,887
Kansas	2	94	2	94	442
Kentucky	9	1,767	14	2,970	36,498
Louisiana	4	205	4	205	692
Maine	3	224	4	530	5,121
Maryland	1	19	5	2,840	32,370
Massachusetts	18	2,094	34	6,385	72,865
Michigan	19	12,419	28	18,417	187,241
Minnesota	7	5,288	13	6,685	34,526
Mississippi			2	346	8,287
Missouri	9	387	23	3,698	80,230
Montana			1	40	1,080
Nebraska			1	210	6,510
Nevada	2	101	2	101	292
New Hamsphire			1	125	2,750
New Jersey	18	5,208	46	11,409	103,096
New York	84	16,420	142	30,300	349,605
North Carolina	1	400	3	975	10,650
North Dakota	2	150	3	165	930
Ohio	21	5,425	44	14,290	247,963
Oklahoma	1	8	1	8	80
Oregon			1	32	800
Pennsylvania	69	40,083	110	48,707	360,299
Rhode Island	2	1,012	3	1,040	5,588
South Carolina	2	60	2	60	126
Tennessee	4	1,235	20	10,526	107,098
Texas	2	15	5	594	2,847
Utah	2	65	3	89	315
Virginia	3	214	10	2,511	47,582
Washington	12	1,742	17	2,549	19,703
West Virginia	2	396	4	927	16,258
Wisconsin	15	1,450	39	6,724	64,187
Wyoming	1	43	1	43	129
Interstate	7	13,541	13	131,906	925,896

The 400 strikes beginning in July are classified in table 3 according to industry group and number of workers involved. About 17 percent of the strikes involved less than 20 workers each and an additional

41 percent involved between 20 and 100 workers each. The average number of workers in the 400 strikes was 350. In only three strikes were as many as 10,000 workers involved. These were (1) a short stoppage of ladies' garment workers in New York and northern New Jersey which began July 8 and ended July 12, (2) the State-wide strike of coal miners in Illinois which was called the last of July and continued into August, and (3) a 1-day strike of truck drivers in Philadelphia on July 2.

TABLE 3.—*Strikes Beginning in July 1937, Classified by Number of Workers Involved*

Industry group	Total	Number of strikes in which the number of workers involved was—						
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000	10,000 and over
All industries	400	67	165	121	26	16	2	3
Manufacturing								
Iron and steel and their products, not including machinery	10		5	3	1	1		
Machinery, not including transportation equipment	22		9	10	3			
Transportation equipment	7	1	1	2	2	1		
Nonferrous metals and their products	6	1	2	1	2			
Lumber and allied products	27	3	13	10	1			
Stone, clay and glass products	8		3	4		1		
Textiles and their products	40	2	18	12	5	2		1
Leather and its manufactures	13	1	5	7				
Food and kindred products	26	6	8	9	1	2		
Tobacco manufactures	2			2				
Paper and printing	16	3	9	4				
Chemical and allied products	11		5	3	3			
Miscellaneous manufactures	10		6	4				
Nonmanufacturing								
Extraction of minerals	9		2	2	1	2	1	1
Transportation and communication	35	7	15	10		1	1	1
Trade	58	16	22	14	3	3		
Domestic and personal service	41	10	22	8		1		
Professional service	4	2	1	1				
Building and construction	31	6	12	9	4			
Agriculture and fishing	1	1						
W. P. A., relief and resettlement projects	9	1	2	4		2		
Other nonmanufacturing industries	14	7	5	2				

Union-organization issues caused about 60 percent of the strikes beginning in July, while wages and hours were the major issues in about 30 percent. A little more than half of the total workers involved were in the union-organization strikes, as compared with 24 percent in the wage-and-hour strikes. Eleven percent of the strikes, including 24 percent of the workers, were sympathy strikes or strikes due to union rivalry, jurisdiction, and miscellaneous grievances. (See table 4.)

TABLE 4.—*Major Issues Involved in Strikes Beginning in July 1937*

Major issues	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues	400	100.0	139,976	100.0
Wages and hours	118	29.5	34,047	24.3
Wage increase	70	17.4	17,912	12.8
Wage decrease	3	.8	2,265	1.6
Wage increase, hour decrease	42	10.5	12,822	9.2
Hour increase	1	.3	21	(1)
Hour decrease	2	.5	1,027	.7
Union organization	238	59.5	72,173	51.6
Recognition	38	9.5	7,961	5.7
Recognition and wages	62	15.5	4,975	3.6
Recognition, wages and hours	90	22.4	35,800	25.6
Closed shop	35	8.8	10,425	7.4
Discrimination	8	2.0	549	.4
Other	5	1.3	12,463	8.9
Miscellaneous	44	11.0	33,756	24.1
Sympathy	1	.3	250	.2
Rival unions or factions	12	3.0	21,916	15.7
Jurisdiction	3	.8	111	(1)
Other	25	6.1	10,538	7.5
Not reported	3	.8	941	.7

[1] Less than 1/10 of 1 percent.

TABLE 5.—*Duration of Strikes Ending in July 1937*

Industry group	Total	Number of strikes with duration of—					
		Less than 1 week	1 week and less than ½ month	½ and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries	466	140	93	88	107	30	8
Manufacturing							
Iron and steel and their products, not including machinery	36	2	3	7	20	4	
Machinery, not including transportation equipment	19	3	6	2	8		
Transportation equipment	8	1	1	3	1	2	
Nonferrous metals and their products	19	2	1	7	6	2	1
Lumber and allied products	36	1	7	15	10	2	1
Stone, clay, and glass products	8	2	1	2	2	1	
Textiles and their products	63	13	6	11	20	9	4
Leather and its manufactures	14	2	4	6	2		
Food and kindred products	27	9	7	4	6		1
Tobacco manufactures	4			1		3	
Paper and printing	17	6	4	2	4	1	
Chemicals and allied products	7	2	1	2	2		
Rubber products	1				1		
Miscellaneous manufactures	13	2	2	2	5	1	1
Nonmanufacturing							
Extraction of minerals	9	4	1		3	1	
Transportation and communication	32	23	6		3		
Trade	62	29	13	9	8	3	
Domestic and personal service	38	15	11	8	3	1	
Professional service	2	2					
Building and construction	29	13	11	4	1		
Agriculture and fishing	1	1					
W. P. A., relief, and resettlement projects	8	3	3	2			
Other nonmanufacturing industries	13	5	5	1	2		

About 64 percent (466) of the 730 strikes in progress during July were terminated during the month, with an average duration of 24 calendar days. Thirty percent of these strikes lasted less than one week and 50 percent were terminated in less than one-half month after they began. Only 8 of the strikes had been in progress for 3 months or more. These were comparatively small strikes, all of them against individual firms. (See table 5.)

Of the 466 strikes which were terminated in July, almost 46 percent (212) were settled with the aid of Government conciliators or labor boards while nearly 39 percent (180) were settled by negotiations directly between the employers and representatives of the organized workers. About 24 percent of the total number of workers involved were in the first group of strikes and 15 percent in the latter. There were no formal settlements of 54 strikes, which included approximately 47 percent of the workers. (See table 6.) In these cases the majority of the strikers returned to work without settlements of the issues in dispute, or they lost their jobs when new workers were hired to fill their places or the employers went out of business. The comparatively large number of workers in this group is accounted for principally by the steel strike against four large firms which began late in May.

TABLE 6.—*Methods of Negotiating Settlements of Strikes Ending in July 1937*

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	466	100.0	250,982	100.0
Employers and workers directly	9	1.9	491	.2
Employers and representatives of organized workers directly	180	38.6	37,133	14.8
Government conciliators or labor boards	212	45.5	61,111	24.3
Private conciliators or arbitrators	11	2.4	33,416	13.3
Terminated without formal settlements	54	11.6	118,831	47.4

TABLE 7.—*Results of Strikes Ending in July 1937*

Results	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	466	100.0	250,982	100.0
Substantial gains to workers	167	35.8	40,907	16.3
Partial gains or compromises	175	37.7	58,407	23.3
Little or no gains to workers	105	22.5	128,199	51.1
Jurisdiction, rival union or faction settlements	16	3.4	23,384	9.3
Not reported	3	.6	85	(1)

[1] Less than 1/10 of 1 percent.

Results of the strikes terminated in July are indicated in tables 7 and 8, the latter showing results in relation to the major issues in-

volved. About 36 percent of the strikes, including 16 percent of the workers involved, resulted in substantial gains to the workers, and 38 percent of the strikes, including 23 percent of the workers, resulted in partial gains or compromises. There were 22.5 percent of the strikes, including slightly more than half of the total number of workers involved, which resulted in little or no gains to the workers. The steel strike mentioned above accounted to a great extent for the large number of workers in the latter group.

TABLE 8.—*Results of Strikes Ending in July 1937 in Relation to Major Issues Involved*

Major issues	Totals	Strikes resulting in—				
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union or faction settlements	Not reported
	Number of Strikes					
All issues	466	167	175	105	16	3
Wages and hours	123	49	53	21	----	----
Wage increase	74	30	31	13	----	----
Wage decrease	2	----	1	1	----	----
Wage increase, hour decrease	44	18	21	5	----	----
Hour increase	1	----	----	1	----	----
Hour decrease	2	1	----	1	----	----
Union organization	292	105	114	72	----	1
Recognition	51	18	8	25	----	----
Recognition and wages	80	34	33	13	----	----
Recognition, wages, and hours	100	35	45	20	----	----
Closed shop	46	12	25	8	----	1
Discrimination	10	2	2	6	----	----
Other	5	4	1	----	----	----
Miscellaneous	51	13	8	12	16	2
Sympathy	2	1	----	1	----	----
Rival unions or factions	12	----	----	----	12	----
Jurisdiction	4	----	----	----	4	----
Other	31	12	8	11	----	----
Not reported	2	----	----	----	----	2
	Number of workers involved					
All issues	250, 982	40, 907	58, 407	128, 199	23, 384	85
Wages and hours	39, 660	10, 028	23, 404	6, 228	----	----
Wage increase	27, 208	6, 871	14, 433	5, 904	----	----
Wage decrease	391	----	315	76	----	----
Wage increase, hour decrease	11, 013	2, 157	8, 656	200	----	----
Hour increase	21	----	----	21	----	----
Hour decrease	1, 027	1, 000	----	27	----	----
Union organization	172, 365	29, 439	33, 936	108, 979	----	11
Recognition	100, 998	1, 482	3, 121	96, 395	----	----
Recognition and wages	13, 594	6, 012	4, 465	3, 117	----	----
Recognition, wages, and hours	28, 151	5, 974	14, 797	7, 380	----	----
Closed shop	16, 097	3, 247	11, 412	1, 427	----	11
Discrimination	903	142	101	660	----	----
Other	12, 622	12, 582	40	----	----	----
Miscellaneous	38, 957	1, 440	1, 067	12, 992	23, 384	74
Sympathy	10, 038	38	----	10, 000	----	----
Rival unions or factions	23, 241	----	----	----	23, 241	----
Jurisdiction	143	----	----	----	143	----
Other	5, 461	1, 402	1, 067	2, 992	----	----
Not reported	74	----	----	----	----	74

The workers won 40 percent, compromised 43 percent, and lost 17 percent of the strikes over wages and hours as compared with 36, 39, and 25 percent of the strikes over union-organization questions. Of the workers involved in the wage-and-hour strikes, 25 percent won their demands, 59 percent obtained compromises, and 16 percent gained little or nothing. In the union-organization strikes, 17 percent won, 20 percent obtained compromises, and 63 percent were involved in strikes which resulted in little or no gains.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, SEPTEMBER 1937

DURING September 1937, conciliators of the Department of Labor were called upon in 176 disputes, which involved directly and indirectly about 103,830 workers. This mediation service was requested by either one or both parties to the disputes. Some of these disputes had already developed into strikes before the Department of Labor was requested to intervene. In others, strikes were threatened but had not yet taken place. In some cases, although no strike was immediately threatened, a controversy between employer and workers had developed to such a stage that an outside mediator was deemed necessary.

TABLE 1.—*Disputes Handled by Conciliators, September 1937, in Each State*

State	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
Alabama	14	[1] 1,564	12	[1] 1,214	2	350
Arkansas	1	205			1	205
California	8	40,366	4	591	4	39,775
Colorado	1	1,160			1	1,160
Connecticut	5	[1] 2,045	4	[1] 595	1	1,450
District of Columbia	4	472	2	439	2	33
Georgia	3	[1] 38	1	(1)	2	38
Illinois	12	[1] 1,280	9	[1] 418	3	862
Indiana	16	[1] 4,631	15	[1] 4,529	1	102
Iowa	2	380	1	42	1	338
Kansas	2	1,102	2	1,102		
Louisiana	4	[1] 462	4	[1] 462		
Maine	1	22			1	22
Maryland	4	834	4	834		
Massachusetts	5	[1] 2,025	4	[1] 1,861	1	164
Michigan	5	[1] 1,446	1	96	4	[1] 1,350
Minnestoa	3	4,184	2	4,024	1	160
Missouri	6	840	2	159	4	681
Montana	2	[1] 18			2	[1] 18
Nebraska	1	335			1	335
New Jersey	7	[1] 801			7	[1] 801
New York	13	[1] 2,488	9	[1] 2,032	4	456
Ohio	11	[1] 6,279	5	[1] 1,000	6	5,279
Oregon	1	(1)			1	(1)
Pennsylvania	27	[1] 22,244	11	[1] 18,109	16	[1] 4,135
Tennessee	2	[1] 75	1	(1)	1	75
Texas	2	153	2	153		
Virginia	6	2,641	3	958	3	1,683
Washington	2	286	1	70	1	216
West Virginia	1	250			1	250
Wisconsin	5	5,207	3	1,357	2	3,850
Total	176	[1] 103,833	102	[1] 40,045	74	[1] 63,788

[1] Exact number not known.

The Department of Labor conciliators were successful in adjusting 78 of these disputes, 65 were pending at the close of the month, 16 were referred to other services, 6 were settled by the disputants themselves before the arrival of the conciliator, and 11 could not be adjusted.

The majority of these disputes concerned demands for wage increases. Many were due to alleged discrimination against union members or for union recognition and selection of sole bargaining agency. Some were concerned with hours, overtime rates of pay, seniority rights, and general working conditions.

These 176 disputes were scattered among 30 different States and the District of Columbia. Workers involved in the disputes are classified in table 2. There were 74 strikes and 102 controversies.

TABLE 2.—*Disputes Handled by Conciliators, by Craft of Workers Involved, September 1937*

Craft	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
Aircraft workers	1	1,400			1	1,400
Aluminum workers	1	3,250			1	3,250
Artists	3	95	2	78	1	17
Automobile makers	1	384	1	384		
Bakery workers	1	365	1	365		
Bedding makers	4	[1] 155	2	(1)	2	[1] 155
Brick and clay makers	4	812	2	727	2	85
Broom and whisk makers	1	4	1	4		
Building trades	11	3,754	7	3,490	4	264
Building service	2	82			2	82
Button makers	1	24	1	24		
Casket makers	1	300			1	300
Cement makers	3	688	1	125	2	563
Chemical workers	1	162	1	162		
Cigarmakers	1	(1)	1	(1)		
Clerks	7	[1] 818	5	[1] 762	2	56
Clothing makers	4	[1] 516	3	[1] 383	1	133
Culinary workers	2	440	1	315	1	125
Drivers	7	2,432	2	207	5	2,225
Electricians	5	[1] 135	3	[1] 123	2	[1] 12
Food handlers	6	[1] 1,185	4	885	2	[1] 300
Fur workers	1	411	1	411		
Furniture workers	17	5,835	12	3,272	5	2,563
Glass workers	2	16,609	2	16,609		
Hotel workers	2	261	1	11	1	250
Laundry workers	10	3,242	9	592	1	2,650
Leather workers	3	372	2	212	1	160
Longshoremen	4	[1] 38,238			4	[1] 38,238
Mechanics	18	[1] 3,832	10	[1] 622	8	[1] 3,210
Metal polishers	3	109	1	15	2	94
Musicians	1	19	1	19		
Optical workers	2	313	1	13	1	300
Paper makers	6	[1] 514	2	[1] 200	4	314
Printing crafts	1	1,600	1	1,600		
Radio workers	1	180			1	180
Railroad workers	1	324			1	324
Rubber workers	3	1,670	1	1,250	2	420
Shipping	4	[1] 460	3	[1] 300	1	160
Shoe workers	1	1,050			1	1,050
Soap makers	1	452	1	452		
Steel and iron workers	8	[1] 2,503	3	[1] 200	5	2,303
Textile workers	11	[1] 2,747	7	[1] 1,124	4	[1] 1,623
Timber workers	1	4,000	1	4,000		
Title searchers	1	125			1	125
Toy makers	1	685	1	685		
Umbrella makers	1	572			1	572
Woodworkers	3	[1] 314	3	[1] 314		
Miscellaneous	2	395	1	110	1	285
Total	176	[1] 103,833	102	[1] 40,045	74	[1] 63,788

[1] Exact number not known.

Labor Turn-Over

LABOR TURN-OVER IN MANUFACTURING, AUGUST 1937

HIGHER TURN-OVER in seasonal industries in August was responsible for an increase in the general manufacturing rates for both lay-offs and total separations, according to reports received by the Bureau of Labor Statistics from representative manufacturing establishments.

The partial suspension of operations in the automobile industry preparatory to the introduction of new models was, to some extent, the cause of the increase in the all-industry lay-off rate from 2.06 per 100 employees in July to 2.57 in August. The quit rate declined from 1.25 to 1.23 and the discharge rate from 0.21 to 0.19. Total separations increased from 3.52 in the preceding month to 3.99 in August. No change was indicated in the accession rate.

A comparison with the corresponding month in 1936 indicated more stabilized employment in manufacturing industries. The total separation rate declined from 4.73 per 100 employees to 3.99 and the accession rate from 4.72 to 3.36.

All Manufacturing

The Bureau of Labor Statistics survey of labor turn-over covers more than 5,000 representative manufacturing establishments which, in August, employed nearly 2,600,000 workers. The rates represent the number of changes in personnel per 100 employees on the pay rolls during the month.

The rates shown in table 1 are compiled from reports received from representative plants in 144 industries. In the 18 industries for which separate rates are shown (see table 2) reports were received from representative plants employing at least 25 percent of the workers in each industry.

Table 1 shows the total separation rate (broken down into quit, discharge, and lay-off rates) and the accession rate for each month of 1936 and for the first 8 months of 1937 for manufacturing as a whole. The average monthly rates for 1936 are also presented.

LABOR TURN-OVER RATES IN MANUFACTURING
PER 100 ON THE PAY ROLL
RATE
12
10
8
6
4
2
0
TOTAL ACCESSION RATE
TOTAL SEPARATION RATE
LAY-OFF RATE
DISCHARGE RATE
QUIT RATE
1933
1934
1935
1936
1937
UNITED STATES BUREAU OF LABOR STATISTICS

TABLE 1.—*Monthly Labor Turn-Over Rates (per 100 Employees) in Representative Factories in 144 Industries*

Class of rate and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
Quit:													
1937	1.27	1.19	1.43	1.38	1.37	1.89	1.25	1.23					
1936	.71	.68	.86	1.16	1.06	1.13	1.15	1.23	1.57	1.29	1.13	1.05	1.09
Discharge:													
1937	.21	.22	.24	.23	.21	.19	.21	.19					
1936	.20	.17	.19	.21	.20	.23	.23	.27	.26	.24	.21	.22	.22
Lay-off:[1]													
1937	1.90	1.44	1.53	1.48	1.79	1.94	2.06	2.57					
1936	2.66	2.21	1.83	1.92	2.06	1.92	1.84	3.23	1.47	1.72	1.70	2.14	2.06
Total rate:													
1937	3.38	2.85	3.20	3.09	3.37	4.02	3.52	3.99					
1936	3.57	3.06	2.88	3.29	3.32	3.28	3.22	4.73	3.30	3.25	3.04	3.41	3.37
Accession:													
1937	4.60	4.71	4.74	4.04	3.56	3.69	3.36	3.36					
1936	3.65	2.95	3.97	4.46	4.05	4.49	4.94	4.72	5.09	4.83	4.60	4.41	4.35

[1] Including temporary, indeterminate, and permanent lay-offs.

Eighteen Industries

In addition to the turn-over rates for manufacturing as a whole, details of labor turn-over are available for 18 separate manufacturing industries. In table 2, the Bureau publishes for the first time turn-over rates for plants manufacturing radios and phonographs, and rayon.

Furniture manufacturing registered the highest accession rate (6.93 per 100 employees) in any of the 18 industries; the lowest hiring rate (1.12) occurred in plants producing rubber tires.

Plants manufacturing radios and phonographs reported the highest quit rate (3.40) and discharge rate (0.59). The lowest quit rate (0.66) and discharge rate (0.05) occurred in the rubber-tire industry. The highest lay-off rate (21.01) and total separation rate (22.16) were indicated in the automobile and body industry. Plants manufacturing rayon reported a lay-off rate of 0.30 per 100 employees and a total separation rate of 1.44.

TABLE 2.—*Monthly Turn-Over Rates (per 100 Employees) in Specified Industries*

Class of rates	August 1937	July 1937	August 1936	August 1937	July 1937	August 1936	August 1937	July 1937	August 1936
	Automobiles and bodies			Automobile parts			Boots and shoes		
Quit	1.01	0.91	0.99	1.20	1.37	1.43	1.13	1.12	1.02
Discharge	.14	.21	.22	.27	.29	.36	.21	.16	.29
Lay-off	21.01	5.33	26.94	6.80	7.27	3.85	1.55	1.01	1.04
Total separation	22.16	6.45	28.15	8.27	8.93	5.64	2.89	2.29	2.35
Accession	3.46	1.98	4.30	5.61	3.35	5.47	2.33	4.26	3.28
	Brick			Cigars and cigarettes			Cotton manufacturing		
Quit	1.41	1.77	1.24	1.64	1.87	2.00	1.45	1.38	1.73
Discharge	.26	.27	.38	.12	.09	.14	.24	.34	.30
Lay-off	5.00	3.94	4.08	1.06	1.70	.54	2.17	2.76	1.06
Total separation	6.67	5.98	5.70	2.82	3.66	2.68	3.86	4.48	3.09
Accession	5.47	4.50	5.35	4.93	4.74	4.78	3.01	3.60	5.46
	Electrical machinery			Foundries and machine shops			Furniture		
Quit	1.02	0.97	0.74	1.12	1.12	1.46	1.41	2.97	1.74
Discharge	.16	.17	.10	.25	.31	.32	.32	.33	.44
Lay-off	.63	.59	.35	1.51	2.07	1.90	2.23	1.63	1.41
Total separation	1.81	1.73	1.19	2.88	3.50	3.68	3.96	4.93	3.59
Accession	2.85	2.83	4.10	3.11	3.20	4.18	6.93	4.29	8.46
	Hardware			Iron and steel			Men's clothing		
Quit	1.35	0.81	0.92	1.17	1.99	1.29	1.05	0.92	1.03
Discharge	.19	.14	.09	.10	.09	.08	.07	.06	.08
Lay-off	1.68	3.56	.35	.84	.71	.39	2.81	2.00	.83
Total separation	3.22	4.51	1.36	2.11	2.79	1.76	3.93	2.98	1.94
Accession	1.45	.89	4.09	2.52	3.19	3.31	3.23	5.08	3.97
	Petroleum refining			Radios and phonographs			Rayon		
Quit	0.75	0.49	0.79	3.40	1.31	(1)	0.94	0.96	0.94
Discharge	.08	.07	.08	.59	.18	(1)	.20	.29	.26
Lay-off	2.58	2.24	1.59	2.68	2.06	(1)	.30	.50	.25
Total separation	3.41	2.80	2.46	6.67	3.55	(1)	1.44	1.75	1.45
Accession	2.78	2.16	2.14	6.51	4.41	(1)	2.86	2.78	3.71
	Rubber tires			Sawmills			Slaughtering and meat packing		
Quit	0.66	0.60	0.86	3.15	2.85	2.11	0.85	1.80	1.34
Discharge	.05	.13	.09	.35	.33	.38	.15	.21	.32
Lay-off	2.02	2.76	.60	2.47	3.03	4.24	5.84	7.16	5.83
Total separation	2.73	3.49	1.55	5.97	6.21	6.73	6.84	9.17	7.49
Accession	1.12	.58	2.49	4.96	6.22	7.08	6.84	6.01	8.58

[1] Data not available.

Wages and Hours of Labor

UNION SCALES OF WAGES AND HOURS IN THE BUILDING TRADES, 1937 [1]

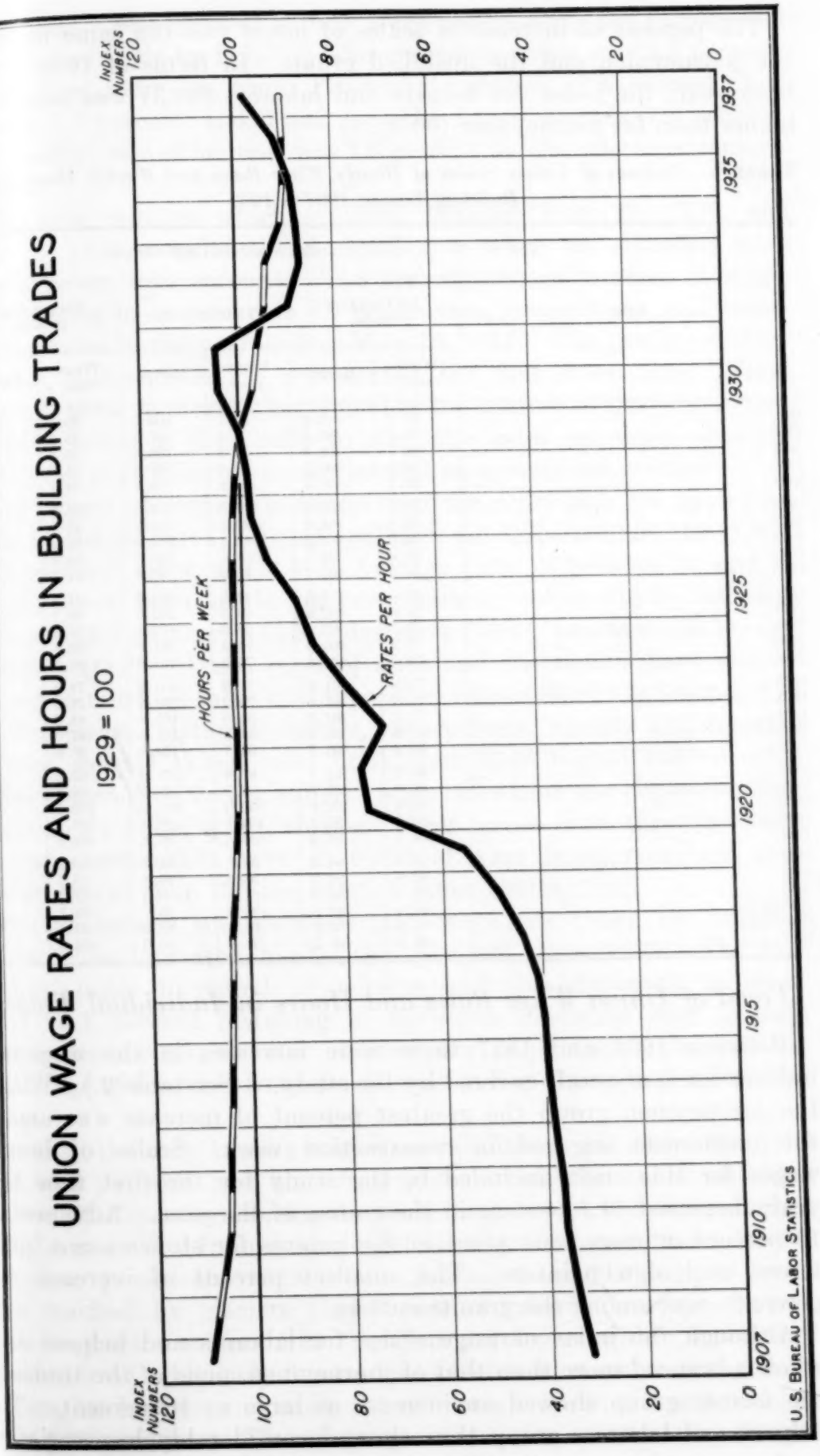
By JOSEPH J. SENTURIA *and* FRANK S. MCELROY, *of the Bureau of Labor Statistics*

THE INDEX of union hourly wage rates for the building trades advanced 7.0 percent between May 15, 1936, and May 15, 1937—the largest rate of annual increase since 1923. The sustained and accelerated rise in hourly wage rates from the low point in 1933 is shown in table 1. The increase of 7.0 percent in 1937 followed increases of 3.6 percent in 1936, 1.1 percent in 1935, and 0.7 percent in 1934. As a result of this series of advances, the 1937 index of hourly wage rates, based on 1929 as 100, stands at 98.0. This is 12.9 percent higher than the index for 1933.

As in the preceding year, rates for helpers and laborers in 1937 increased on the average more than those of journeymen—8.8 percent as compared to 6.8 percent. The index for the unskilled and semiskilled group rose to 101.5. This is higher than the base year 1929 or any other year except 1930 and 1931.

The index of hours per week provided in union agreements showed a slight increase of 0.4 percent, advancing from 89.8 in 1936 to 90.2 in 1937. The index had remained unchanged between 1935 and 1936. Except for a minute advance in 1923, this increase was the only one since the surveys were begun in 1907. The slight increase in hours in 1937 appears to be chiefly a result of the abandonment by local unions of sharing-the-work plans as employment opportunities have increased. This is evidenced by the fact that most of the increases were from 30 to longer hour weeks. There were scarcely any increases among the 40-hour scales.

[1] In the August 1937 Monthly Labor Review appeared an article entitled "Wage Rates and Hours of Labor in the Building Trades," and in the October Review, "Hours of Labor in the Building Trades, 1936." These were reports of a wage and hour study made in October 1936, based on pay-roll records of contractors located in 105 cities in the United States. The data covered both union and nonunion workers and represented actual wages paid and hours worked during the pay period covered. The present article is a report of the Bureau's annual study of union scales of wages and hours in 70 cities, obtained from union officials and collective agreements. As part of a series of such studies, the present report affords not only a static picture of average wages and hours as of May 15, 1937, but also a measure of the changes in union rates and hours which have taken place since 1907, when the series was begun. The figures of average union wages in the two reports vary, due to the difference in time when they were made and also to the fact that the October 1936 study included a number of cities, chiefly smaller cities, which are not covered in this report. As the article in the August Monthly Labor Review indicated, smaller cities tend to have lower wage scales.


UNION WAGE RATES AND HOURS IN BUILDING TRADES
1929 = 100
INDEX NUMBERS
120
100
80
60
40
20
0
HOURS PER WEEK
RATES PER HOUR
1907
1910
1915
1920
1925
1930
1935
1937
U. S. BUREAU OF LABOR STATISTICS

The percent of increase in scales of hours was the same for both the journeymen and the unskilled group. In terms of 1929 as the base year, the index for helpers and laborers (91.3) was somewhat higher than for journeymen (90.0).

TABLE 1.—*Indexes of Union Scales of Hourly Wage Rates and Weekly Hours in the Building Trades, 1907 to 1937*

Year	Index numbers (1929=100.0)					
	All building trades		Journeymen		Helpers and laborers	
	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours
1907	31.5	110.0	31.7	109.3	30.7	113.1
1908	33.5	108.3	33.8	107.7	32.1	110.8
1909	35.1	106.8	35.5	106.4	33.2	108.5
1910	36.5	105.5	37.0	105.2	34.3	106.6
1911	37.1	105.1	37.6	104.8	34.5	106.4
1912	37.9	104.8	38.5	104.5	34.8	106.1
1913	38.8	104.6	39.4	104.2	35.8	106.0
1914	39.6	104.2	40.3	103.9	36.2	105.5
1915	39.9	104.1	40.6	103.8	36.5	105.4
1916	41.2	103.7	42.0	103.4	37.7	105.1
1917	43.8	103.5	44.3	103.2	41.4	104.7
1918	48.6	102.9	49.0	102.6	48.0	104.3
1919	55.7	102.4	56.0	102.2	55.5	103.3
1920	75.2	101.9	74.9	101.7	80.5	102.7
1921	76.6	101.8	76.3	101.6	81.3	102.7
1922	71.8	101.8	71.9	101.7	74.0	102.4
1923	79.4	101.9	79.2	101.8	78.5	102.6
1924	85.7	101.9	85.6	101.8	84.9	102.6
1925	89.0	101.9	88.8	101.8	87.7	102.4
1926	94.8	101.7	94.7	101.6	95.6	102.2
1927	98.1	101.5	97.9	101.4	97.3	102.2
1928	98.7	100.9	98.7	100.7	98.3	102.1
1929	100.0	100.0	100.0	100.0	100.0	100.0
1930	104.2	97.2	104.1	97.1	105.1	97.8
1931	104.5	96.0	104.5	95.8	104.5	97.0
1932	89.3	94.3	89.3	94.1	89.2	94.8
1933	86.8	94.0	86.9	93.8	85.2	94.4
1934	87.4	90.5	87.4	90.3	87.7	91.4
1935	88.4	89.8	88.4	89.7	88.2	90.8
1936	91.6	89.8	91.4	89.6	93.4	91.0
1937	98.0	90.2	97.6	90.0	101.5	91.3

Trend of Union Wage Rates and Hours in Individual Trades

Between 1936 and 1937 there were increases in the wage-rate indexes for every craft covered by the study. (See table 2.) Within the journeymen group the greatest percent of increase was among the machinists engaged in construction work. Scales of hourly wages for this craft, included in the study for the first time this year, increased 14.7 percent in the course of the year. Advances of 10 percent or more took place in the indexes for stonemasons, plasterers, and sign painters. The smallest percent of increase—0.6 percent—was among the granite cutters.

Although the index of wage scales for laborers and helpers as a whole advanced more than that of journeymen, none of the trades in the former group showed an increase as large as 10 percent. The helpers and laborers group thus showed considerably less variation in changes as between the different occupations than did the journey-

men group. The greatest gain in wage rates among the helpers and laborers was made by building laborers, whose index rose 9.5 percent. Other large increases were: Plasterers' laborers, 8.9 percent; hod carriers, 7.7 percent; steam and sprinkler fitters' helpers, 7.2 percent. The smallest rate of increase was 2.6 percent for elevator constructors' helpers.

The rate changes which occurred between May 15, 1936, and May 15, 1937, acquire added significance when the situation since 1933 is taken into account. The first significant increase in wage-scale indexes in recent years for bricklayers, stonecutters, and stonemasons came in the year ending May 15, 1937. The granite cutters' increase, although small, represented the first since 1931. Thus, although these four crafts continued at the bottom of the journeymen crafts in terms of their ratio to the 1929 index, increases obtained during the year initiated or accelerated an upward movement.

The largest percentage increases over the depression low have been made by the glaziers (18.9), sign painters (16.8), carpenters (15.4), and structural-iron workers (14.3). Average gains of between 13 and 14 percent have been made by composition roofers (13.7), asbestos workers (13.5), lathers (13.5), plasterers (13.4), painters (13.1), and engineers (13.1). Wage rates of slate and tile roofers have not increased so much as those of composition roofers since the low point of the depression. Granite cutters, stonecutters, mosaic and terrazzo workers, marble setters, and bricklayers have lagged behind other trades in terms of average gains in wage rates from the depression low. Although declining less than most other trades from the 1929 level, elevator constructors have, in terms of wage rates, recovered to a smaller extent than the majority of other trades.

Among helpers and laborers, the wage-rate index for building laborers has increased most (25.1 percent) since 1933. The hod carriers' index increased 17 percent and the plasterers' laborers' index 16.1 percent. Moving in the same moderate way as their journeymen's rates, elevator constructors' helpers show the smallest percentage of recovery from the depression low of any in the unskilled group.

In 1936 the only trade whose wage-rate index was above the 1929 level was portable and hoisting engineers, with an index of 104.2. As a result of increases during the year, the index for this trade climbed to 112.6 in 1937. In addition, eight other journeyman trades for the first time passed the 1929 level. Among these, the highest levels were reached by glaziers (104.6), structural-iron workers (104.4), and composition roofers (103.7). Ten crafts were within 5 points of the 1929 level, while only five trades—plasterers, stonemasons, granite cutters, bricklayers, and stonecutters—were more than 5 points below their 1929 indexes. The wage-rate index for stonecutters showed the least gain, being 12.7 points below the base figure.

TABLE 2.—*Indexes of Union Scales of Wages and Hours in Each Building Trade, 1907 to 1937*

[1929=100]

Year	Asbestos workers		Bricklayers		Carpenters		Cement finishers		Electricians (inside wiremen)		Elevator constructors	
	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours
1907	------	------	37.9	112.0	32.0	107.2	38.5	109.1	31.3	110.3	------	------
1908	------	------	38.9	109.6	34.0	105.6	38.4	108.1	34.2	109.5	------	------
1909	------	------	39.7	107.3	35.9	104.4	39.6	108.9	35.3	108.8	------	------
1910	------	------	40.4	105.3	37.6	103.1	40.0	108.7	36.3	108.2	------	------
1911	------	------	40.4	104.9	38.1	102.6	41.5	107.7	36.7	108.0	------	------
1912	------	------	41.0	104.9	38.9	102.5	41.5	107.7	37.1	107.6	------	------
1913	------	------	41.7	104.7	39.5	102.4	42.5	106.5	37.9	107.2	------	------
1914	------	------	42.8	104.2	40.1	102.0	42.9	105.8	39.1	106.8	41.8	102.7
1915	------	------	42.9	104.1	40.6	102.0	43.3	105.8	39.9	106.2	42.1	102.2
1916	40.0	103.0	43.3	103.9	41.8	102.0	43.7	104.2	40.7	105.3	43.1	102.1
1917	42.1	102.6	44.8	103.6	45.5	102.0	46.2	103.0	43.3	104.9	46.2	101.6
1918	47.1	102.0	48.1	103.6	50.5	100.9	51.0	102.5	48.2	104.2	49.2	101.6
1919	57.3	101.0	53.4	103.4	58.2	100.3	57.2	101.7	55.2	103.3	57.3	100.9
1920	74.5	100.9	72.8	103.3	77.8	100.4	77.7	101.2	72.8	103.0	73.6	100.8
1921	75.5	101.1	72.3	103.3	78.4	100.3	80.3	101.2	75.4	103.0	77.4	100.7
1922	70.3	101.1	70.4	103.3	72.7	100.4	74.5	101.1	71.1	103.0	72.4	100.4
1923	72.9	100.9	79.7	103.3	81.0	100.7	81.5	101.1	73.8	103.0	76.9	100.5
1924	81.4	101.0	84.3	103.2	86.7	100.6	90.1	101.1	82.4	102.9	86.3	100.5
1925	84.6	101.0	89.2	103.1	88.5	100.6	90.6	100.8	86.7	102.9	90.5	100.4
1926	90.5	101.0	94.7	103.2	95.0	100.6	96.7	100.8	91.3	102.9	95.3	100.4
1927	95.0	100.9	97.0	102.7	98.1	100.6	101.0	100.5	95.1	102.9	98.8	100.4
1928	95.6	100.9	97.8	102.7	98.4	100.0	100.0	99.9	96.0	102.4	99.8	100.4
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	105.8	96.3	102.4	97.6	104.0	96.9	106.6	96.1	101.8	97.6	104.7	96.8
1931	106.8	94.0	102.2	96.1	104.2	95.4	107.0	95.0	103.2	96.6	105.2	95.0
1932	89.0	92.8	87.5	93.9	85.4	93.0	93.4	93.9	98.5	94.3	97.9	95.0
1933	88.7	91.8	85.2	94.9	85.2	91.6	91.2	95.7	89.9	94.3	91.0	93.0
1934	88.6	91.7	84.5	93.3	86.7	90.8	92.1	92.2	90.1	88.7	91.2	92.2
1935	89.8	91.0	84.2	93.2	87.8	90.4	92.6	92.0	94.4	85.1	91.3	91.9
1936 [1]	93.4	91.3	84.7	93.2	92.3	90.5	95.0	91.6	96.9	85.4	92.4	92.6
1937	100.6	91.0	90.6	94.1	98.3	90.3	101.9	91.7	101.1	89.6	96.0	92.4

Year	Engineers (portable and hoisting)		Glaziers		Granite cutters		Lathers		Marble setters		Mosaic and terrazzo workers	
	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours
1907	------	------	------	------	36.6	102.5	------	------	38.4	102.6	------	------
1908	------	------	------	------	36.8	102.3	------	------	38.8	102.6	------	------
1909	------	------	------	------	37.4	102.3	------	------	39.0	101.5	------	------
1910	------	------	------	------	37.6	101.9	------	------	39.5	101.3	------	------
1911	------	------	------	------	37.7	101.6	------	------	39.9	100.9	------	------
1912	41.8	105.6	------	------	38.1	101.2	39.4	104.0	40.1	100.9	------	------
1913	43.0	104.1	------	------	40.1	100.0	40.3	104.0	42.7	100.9	------	------
1914	43.6	104.0	------	------	40.3	100.4	41.0	104.0	43.2	100.7	------	------
1915	43.6	103.5	------	------	40.5	100.4	41.5	103.5	43.6	100.7	------	------
1916	44.1	103.1	------	------	42.2	100.3	42.7	103.5	43.8	100.5	37.7	103.9
1917	46.5	102.4	------	------	43.8	100.3	44.4	103.0	43.8	100.4	39.7	103.9
1918	53.2	100.8	45.9	101.6	52.2	100.3	47.9	103.0	46.1	100.4	42.9	100.2
1919	58.3	100.3	49.1	101.6	61.7	100.3	53.3	102.7	51.2	100.0	46.1	100.2
1920	75.5	99.8	71.0	101.2	76.0	100.3	76.0	102.1	67.7	100.0	68.2	100.2
1921	76.7	99.4	72.2	101.6	83.7	100.1	77.2	101.9	68.8	100.1	69.4	100.2
1922	72.2	99.1	72.4	101.7	83.5	99.3	72.5	102.0	67.4	100.1	67.4	100.2
1923	79.8	98.7	76.7	101.2	85.1	99.9	80.1	102.3	76.2	100.1	69.0	100.2
1924	84.8	98.7	80.9	101.2	85.8	100.2	86.4	102.1	79.7	100.1	81.5	100.3
1925	88.5	99.0	90.0	100.8	86.8	100.3	94.2	101.8	81.4	100.1	85.7	100.2
1926	93.4	99.2	91.2	101.2	97.7	100.1	96.6	101.5	91.0	100.1	87.5	100.2
1927	96.4	100.8	97.4	101.5	97.1	100.3	100.5	101.0	92.9	100.0	91.1	99.9
1928	100.4	99.7	98.5	101.1	98.2	100.3	100.8	100.5	93.4	100.0	95.3	99.9
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	107.7	95.1	104.6	96.8	105.1	95.2	104.3	94.3	100.3	94.7	104.7	94.5
1931	107.7	93.7	105.3	95.1	105.2	94.4	103.7	93.8	100.8	93.0	105.6	93.6
1932	100.7	92.6	88.2	92.9	94.2	94.8	93.1	93.3	92.3	92.0	97.2	89.8
1933	99.6	91.7	88.0	92.9	90.7	93.6	89.7	92.9	89.2	91.9	89.5	91.0
1934	101.4	89.7	93.2	88.1	90.6	92.1	92.1	87.5	88.8	90.9	90.8	90.9
1935	103.1	89.2	94.1	87.5	90.5	92.1	93.1	87.4	89.4	90.9	90.8	90.3
1936 [1]	104.2	89.7	95.5	87.8	90.5	91.5	95.5	86.5	89.9	90.8	91.1	89.4
1937	112.6	89.5	104.6	87.9	91.0	91.9	101.8	87.7	95.1	90.8	95.4	90.0

[1] Minor corrections have been made in the indexes for some trades for 1936.

TABLE 2.—*Indexes of Union Scales of Wages and Hours in Each Building Trade, 1907 to 1937*—Continued

Year	Painters		Plasterers		Plumbers and gas fitters		Roofers—composition		Roofers—slate and tile		Sheet-metal workers	
	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours
1907	27.5	114.1	39.9	108.8	37.8	104.7					33.8	105.4
1908	30.5	112.3	39.8	108.3	38.2	104.8					34.5	105.3
1909	32.6	110.7	40.1	108.3	38.8	104.8					34.7	105.3
1910	34.6	109.3	40.5	108.2	39.1	104.6					35.7	105.3
1911	35.3	108.6	40.8	108.8	41.4	104.3					36.8	105.0
1912	35.7	108.5	41.6	107.5	41.6	103.5					37.6	103.7
1913	37.3	107.9	42.0	107.5	43.0	103.5					39.3	103.5
1914	38.5	107.6	42.2	107.4	43.6	103.1	36.2	103.7	37.0	104.0	40.7	103.4
1915	38.7	107.6	42.4	106.9	43.9	103.1	37.1	103.7	38.4	104.0	41.3	103.2
1916	42.3	106.9	43.9	105.8	44.3	102.6	37.4	103.7	39.5	103.6	42.0	102.8
1917	43.6	106.8	45.2	105.7	45.8	102.5	39.5	103.0	42.1	101.8	43.8	102.7
1918	48.1	106.3	47.6	105.4	50.6	101.6	44.8	102.5	46.1	101.8	51.3	101.6
1919	56.3	106.1	54.9	105.4	57.2	101.3	49.8	102.5	52.5	101.5	56.6	101.2
1920	76.7	103.0	71.7	105.2	74.0	101.3	70.8	102.5	67.9	101.5	75.9	100.8
1921	78.9	103.1	75.6	104.9	77.4	101.1	74.2	100.6	73.9	101.4	78.7	100.8
1922	73.8	103.9	72.7	105.0	71.9	101.1	71.0	100.6	70.7	101.3	73.0	100.7
1923	81.0	103.6	81.0	105.5	79.4	101.1	71.9	100.6	78.8	101.6	78.6	100.7
1924	85.3	103.5	90.6	105.6	86.6	101.1	83.3	100.6	87.3	101.2	86.3	100.7
1925	90.0	103.8	92.1	105.3	88.4	101.1	85.8	100.6	91.3	101.2	89.2	100.7
1926	95.4	103.4	98.9	102.2	95.2	101.1	93.3	100.6	94.3	101.2	95.3	100.7
1927	98.6	103.0	101.0	101.8	97.2	100.9	95.9	100.6	98.8	101.2	98.2	100.4
1928	100.2	100.3	101.2	100.9	99.2	100.9	98.1	100.5	99.0	101.2	96.3	100.1
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	105.6	98.9	105.0	97.7	103.9	95.4	106.0	96.1	103.1	95.7	104.6	96.3
1931	106.1	98.0	104.7	97.0	105.1	94.1	106.7	94.9	103.5	94.1	106.2	94.7
1932	89.6	97.9	87.1	95.2	91.4	93.7	93.2	93.9	89.9	94.1	92.1	93.3
1933	87.8	97.7	83.7	97.2	90.6	93.3	91.2	95.1	87.7	94.1	89.4	93.2
1934	86.4	85.6	84.6	93.1	91.4	92.4	93.0	92.6	87.2	93.8	89.7	91.9
1935	86.7	85.5	85.6	91.6	92.8	91.8	95.6	92.5	89.5	92.6	90.4	92.0
1936[1]	91.1	85.9	86.1	90.1	95.2	90.6	96.2	93.1	90.2	93.4	92.2	91.9
1937	97.7	85.9	94.9	90.2	100.4	91.1	103.7	93.2	96.9	93.3	98.9	92.0

Year	Sign painters		Steam and sprinkler fitters		Stonecutters		Stonemasons		Structural-iron workers		Tile layers	
1907			33.8	105.9	38.1	101.2	34.7	106.8	31.8	108.1		
1908			34.2	105.9	38.2	101.2	35.2	106.8	34.7	105.9		
1909			38.9	105.6	38.2	101.2	35.3	106.8	37.2	104.5		
1910			36.1	105.0	38.4	101.2	35.6	105.2	39.5	103.4		
1911			37.3	104.9	38.5	101.2	36.0	104.5	40.5	103.2		
1912			37.9	104.2	38.6	100.9	36.4	104.5	41.2	102.1	42.7	102.8
1913	39.9	106.7	39.3	103.8	39.6	100.8	37.6	104.4	42.5	101.7	44.8	102.3
1914	40.1	106.3	40.0	102.5	41.1	100.8	38.7	104.4	43.3	101.5	45.0	102.3
1915	40.1	106.0	40.9	102.5	41.4	100.8	39.1	104.3	43.3	101.5	45.3	101.9
1916	40.9	106.1	41.7	102.2	41.8	100.4	39.7	104.1	44.0	101.2	45.9	101.4
1917	42.7	105.6	43.3	102.1	43.8	100.3	41.2	104.0	46.6	101.0	48.2	101.1
1918	46.7	105.5	47.3	101.1	46.7	100.3	45.2	104.0	53.4	100.7	49.6	101.1
1919	56.1	105.4	53.2	101.0	55.5	100.3	50.7	103.4	60.1	100.5	54.1	100.7
1920	75.7	105.3	70.2	100.9	72.7	100.2	70.7	103.4	76.2	100.5	72.8	100.4
1921	78.5	105.4	71.1	100.8	74.7	100.2	72.4	103.5	77.6	100.5	72.2	100.5
1922	77.8	105.4	69.5	100.8	71.7	100.2	67.4	103.4	70.5	100.5	71.0	100.3
1923	84.0	103.4	72.9	100.8	78.2	100.1	79.7	103.4	75.1	100.5	77.6	100.6
1924	95.7	101.6	83.6	100.8	84.0	100.1	84.5	103.1	85.0	100.5	88.1	100.6
1925	96.7	101.6	88.0	100.8	87.5	100.3	86.1	103.1	85.9	100.2	90.2	100.6
1926	96.2	103.7	95.3	100.7	95.4	100.1	94.9	103.3	92.4	100.5	94.6	100.6
1927	98.9	101.8	98.0	100.5	95.1	100.1	96.1	103.1	99.0	100.5	99.0	100.5
1928	99.0	101.7	99.4	100.5	95.5	100.2	97.3	103.0	99.2	100.4	98.9	100.2
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	99.9	99.1	104.9	95.5	100.7	96.9	101.5	96.6	105.5	96.9	104.5	94.8
1931	99.8	98.1	105.5	94.5	101.0	96.4	102.0	94.9	106.5	95.8	105.6	93.6
1932	90.1	97.6	90.9	93.6	93.7	94.3	90.5	94.5	92.3	93.4	91.1	92.6
1933	83.2	97.8	88.2	93.1	84.7	94.3	84.5	93.8	91.3	93.1	88.3	92.4
1934	82.9	95.1	89.2	92.5	85.1	93.0	84.4	93.4	92.5	91.8	88.3	86.2
1935	85.6	93.1	90.7	92.2	85.1	92.7	84.2	93.3	93.2	90.7	89.0	86.2
1936[1]	87.6	92.9	93.7	92.4	86.3	92.8	85.2	93.3	95.6	90.6	90.7	86.1
1937	96.8	92.9	98.8	92.5	88.3	92.8	94.1	93.3	104.4	90.2	97.1	89.8

[1] Minor corrections have been made in the indexes for some trades for 1936.

TABLE 2.—*Indexes of Union Scales of Wages and Hours in Each Building Trade, 1907 to 1937*—Continued

Year	Building laborers		Hod carriers (masons' tenders)		Plasters' laborers		Elevator constructors' helpers		Marble setters' helpers		Steam and sprinkler fitters' helpers		Tile layers' helpers	
	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours	Wage rate	Hours
1907	35.0	108.5	33.1	110.5	34.1	106.6	.....	.....	.....	.....	26.4	103.1	.....	.....
1908	35.2	108.5	33.2	110.5	35.6	106.2	.....	.....	.....	.....	26.8	103.0	.....	.....
1909	35.3	108.1	33.3	110.1	36.0	105.9	.....	.....	.....	.....	26.9	102.8	.....	.....
1910	36.7	105.5	33.8	109.2	36.2	105.9	.....	.....	.....	.....	29.1	101.8	.....	.....
1911	36.8	105.5	34.1	108.6	36.2	105.8	.....	.....	.....	.....	29.3	101.7	.....	.....
1912	37.2	105.5	34.3	107.8	36.6	105.3	.....	.....	35.8	100.5	30.2	101.6	36.1	103.0
1913	38.8	105.5	34.8	107.8	37.5	105.3	.....	.....	37.9	100.5	31.0	101.3	36.8	102.5
1914	39.2	105.2	35.2	106.4	38.3	105.4	37.5	102.9	38.1	100.1	31.6	102.0	37.1	102.5
1915	39.4	105.2	35.4	106.4	38.4	105.4	37.8	102.2	38.1	100.1	32.5	102.0	38.4	100.9
1916	41.2	104.6	36.5	106.4	39.4	104.4	38.8	102.2	38.1	100.1	33.0	101.7	39.8	100.6
1917	45.5	103.5	40.7	106.3	42.1	104.2	40.9	101.7	40.6	100.1	35.1	101.7	40.8	99.8
1918	53.4	103.0	47.5	106.3	48.5	104.2	43.6	101.7	42.5	100.1	40.5	100.3	42.1	99.8
1919	60.5	101.1	55.6	105.9	55.3	103.8	52.9	100.9	48.6	100.0	48.6	100.2	51.0	99.5
1920	87.7	100.0	80.8	105.7	80.1	103.8	74.1	100.7	82.0	100.0	70.4	100.2	83.5	99.5
1921	88.2	100.0	81.2	105.7	82.7	103.4	77.5	100.5	81.9	100.2	72.2	100.2	84.4	99.6
1922	82.8	99.3	67.3	105.9	72.6	103.4	73.8	100.6	76.2	100.2	74.1	100.3	79.3	99.6
1923	84.4	100.0	73.5	105.9	80.0	103.5	77.3	100.6	82.3	100.2	78.7	100.3	81.1	100.5
1924	93.9	97.7	76.8	105.8	86.0	103.4	85.2	100.6	89.2	100.2	87.2	100.3	88.3	100.5
1925	89.7	99.8	85.8	105.7	91.7	103.3	89.2	100.5	84.6	100.2	89.7	100.3	90.8	100.5
1926	98.7	100.0	93.5	105.8	97.1	99.9	96.1	100.5	93.9	100.2	95.0	100.2	98.4	100.5
1927	99.1	100.2	95.7	105.8	98.0	99.8	99.0	100.5	93.3	100.0	99.3	100.4	99.5	100.5
1928	99.5	100.1	95.8	105.8	99.6	100.1	100.9	100.5	94.3	100.1	101.4	100.0	101.5	100.5
1929	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930	105.5	98.1	103.8	99.3	106.0	97.4	105.4	96.2	101.7	95.9	109.3	92.1	108.5	93.6
1931	103.9	97.0	103.5	98.8	105.6	96.6	105.7	94.7	101.8	94.2	109.3	91.8	108.5	92.6
1932	89.4	93.6	85.8	96.6	87.6	96.3	96.9	94.7	93.2	93.8	94.3	91.7	95.8	91.4
1933	84.2	93.2	84.7	96.1	82.5	94.7	88.9	92.5	90.7	94.0	91.6	91.6	91.4	91.5
1934	87.3	89.1	90.3	94.3	84.8	91.8	88.4	91.8	90.9	92.3	91.9	91.1	91.5	87.6
1935	88.6	89.0	87.4	94.2	86.2	90.7	88.6	91.5	91.5	92.3	93.0	91.1	94.6	76.3
1936 [1]	96.2	89.5	92.1	94.0	88.0	89.2	89.5	92.1	91.6	92.2	93.2	91.5	96.0	76.3
1937	105.3	89.7	99.1	94.3	95.8	89.2	91.8	91.7	97.0	92.2	100.0	91.8	101.2	81.6

[1] Minor corrections have been made in the indexes for some trades for 1936.

Although the wage-rate index for the helpers and laborers group as a whole was higher than that of 1929, only two of these trades—building laborers and tile layers' helpers—were above the base figure, while the index for steam and sprinkler fitters' helpers barely reached the 100 mark. Hod carriers were close to the 1929 level, with an index of 99.1. Farthest from the 1929 figure were elevator constructors' helpers, with an index of 91.8.

Between 1936 and 1937 the index of union scales of hours per week changed by more than 1 percent for only four journeyman crafts. The indexes of hour scales for electricians increased 4.9 percent and for tile layers 4.4 percent, while lathers and bricklayers had increases of slightly more than 1 percent. Among the helpers and laborers the only change of more than 1 percent was an increase of 7 percent among tile layers' helpers. With the exception of bricklayers, these crafts were among those whose scales of hours per week fell most from the 1929 level.

Since data for boilermakers and machinists were first gathered in 1937 for this and the preceding year, it is not possible to give an index number for these crafts comparable to those for the other crafts. The changes from 1936 to 1937 in comparable quotations for these two trades were as follows:

Percentage change from 1936

	Wage rate	*Hours*
Boilermakers	+ 2.4	−0.1
Machinists	+14.7	− .4

Changes in Union Scales Between 1936 and 1937

Increases in wage rates were reported for 1,254, or about 62 percent, of the quotations which were comparable with 1936. (See table 3.) Only 19 quotations—less than 1 percent—were lower than the comparable figure for 1936, while 759, or 37 percent, remained unchanged. More than half of all the building-trades union members in 1937 were covered by union scales which were higher than the corresponding scales for 1936. Only 0.1 percent had decreases, while rates for 48.1 percent continued at the 1936 level.

Approximately the same proportion of increases were reported for journeymen as for helpers and laborers. However, the proportion of members affected by these rate increases was somewhat larger among the latter (57.9 percent) than among the journeymen (50.5 percent).

Increases in wage scales were reported for 70 percent or more of the quotations comparable with 1936 for the following journeyman trades: Asbestos workers, boilermakers, bricklayers, plasterers, and sheet-metal workers, and for composition roofers' helpers, plumbers' and plasterers' laborers, and tile layers' helpers among the unskilled groups. At the other end of the scale were the granite cutters, with only 6 increases out of 36 comparable quotations. No craft had a significant number of decreases.

Since the number of workers covered by a wage scale may vary from a handful to several thousand, the proportion of union members affected by the changes varied considerably from the proportion of changes in quotations. Thus, wage increases affected the largest proportion of members among machinists, glaziers, and sign painters in the journeyman crafts. In addition to these occupations, at least half of the members were affected by wage increases in the following trades: Asbestos workers, cement finishers, engineers, painters, plasterers, roofers of both types, steam and sprinkler fitters, stonemasons, and structural-iron workers. Granite and stone cutters shared least in the general advance in wage rates, while only about a fourth of the boilermakers and a third of the mosaic and terrazzo workers received increases. Wage rate advances affected more than

85 percent of the plumbers' laborers and more than half of the members in all the other helpers' and laborers' occupations except marble setters' helpers and elevator constructors' helpers.

The few decreases were scattered among 11 journeyman crafts and 4 helpers' and laborers' groups. In no craft did decreases affect more than 2 percent of the members.

TABLE 3.—*Number of Changes in Union Wage-Rate Quotations, and Percent of Members Affected, May 15, 1937, Compared With May 15, 1936*

Trade	Number of quotations comparable with 1936	Number of quotations showing—			Percent of union members affected		
		Increase	Decrease	No change	Increase	Decrease	No change
All building trades	2,032	1,254	19	759	51.8	0.1	48.1
Journeymen	1,662	1,023	15	624	50.5	.1	49.4
Asbestos workers	50	36		14	68.0		32.0
Boilermakers	25	18		7	24.4		75.6
Bricklayers	72	53	1	18	43.3	.2	56.5
Carpenters	89	60		29	47.8		52.2
Cement finishers	64	42	2	20	50.0	.5	49.5
Electricians, inside wiremen	79	47		32	38.8		61.2
Elevator constructors	93	53		40	44.5		55.5
Engineers, portable and hoisting	158	89	3	66	60.2	.1	39.7
Glaziers	49	32		17	82.5		17.5
Granite cutters	36	6	1	29	5.8	1.1	93.1
Lathers	72	46		26	47.7		52.3
Machinists	14	8		6	82.9		17.1
Marble setters	59	36	1	22	44.3	.4	55.3
Mosaic and terrazzo workers	45	25		20	32.9		67.1
Painters	72	42	1	29	58.0	.1	41.9
Plasterers	69	50	1	18	56.1	.4	43.5
Plumbers and gas fitters	70	42		28	43.7		56.3
Roofers, composition	40	27		13	62.4		37.6
Roofers, slate and tile	33	23		10	55.0		45.0
Sheet-metal workers	56	40		16	62.0		38.0
Sign painters	60	31	2	27	73.4	1.6	25.0
Steam and sprinkler fitters	78	49		29	50.7		49.3
Stonecutters	57	22		35	18.5		81.5
Stonemasons	62	42	1	19	55.9	.1	44.0
Structural-iron workers	100	65	1	34	58.8	.2	41.0
Tile layers	60	39	1	20	49.5	.2	50.3
					57.9	.2	41.9
Helpers and laborers	370	231	4	135			
Building laborers	73	44	1	28	58.6	.1	41.3
Composition roofers' helpers	10	8		2	62.7		37.3
Elevator constructors' helpers	76	43		33	33.3		66.7
Hod carriers (masons' tenders)	53	33	1	19	52.2	.4	47.4
Marble setters' helpers	29	19	1	9	44.0	.8	55.2
Plasterers' laborers	45	33		12	62.2		37.8
Plumbers' laborers	12	9		3	86.9		13.1
Steam and sprinkler fitters' helpers	42	21		21	58.4		41.6
Tile layers' helpers	30	21	1	8	63.5	.4	36.1

Increases in scales of hours between 1936 and 1937 were reported in 56 quotations and decreases in 74. The great bulk of union quotations continued their same scale of hours. The increases affected 3.0 percent of all the members and the decreases 3.6 percent. Changes in hour scales affected a somewhat larger proportion of helpers and laborers than journeymen. Furthermore, while more journeymen had their hours reduced than increased, the reverse was true with reference to the helpers' occupations.

The most widespread changes in scales of hours occurred among the electricians, with 18.3 percent of the members having increases and 28.5 percent decreases. The most significant increases were in Chicago, Cleveland, and Portland, Oreg. Increases were mostly from 30 to 40. In Chicago, however, an arrangement under which men worked only every other week, to average 20 hours a week, was dropped and the scale of hours returned to 40 per week. In Oklahoma City hours were increased from 40 to 44. While 10.7 percent of the tile layers and 16.4 percent of their helpers had hours lengthened, these were practically all in Chicago, where a share-the-work arrangement was abandoned on May 1, 1937, and the scale of hours was raised from 24 to 40 per week. The most consistent movement toward a shorter scale of hours during the year was found among the structural-iron workers.

TABLE 4.—*Number of Changes in Union Hour Quotations, and Percent of Members Affected, May 15, 1937, Compared With May 15, 1936*

Trade	Number of quotations comparable with 1936	Number of quotations showing—			Percent of union members affected		
		Increase	Decrease	No change	Increase	Decrease	No change
All building trades	2,032	56	74	1,902	3.0	3.6	93.4
Journeymen	1,662	45	63	1,554	2.3	3.4	94.3
Asbestos workers	50		2	48		1.8	98.2
Boilermakers	25		1	24		1.2	98.8
Bricklayers	72	2	1	69	2.8	.2	97.0
Carpenters	89	1	4	84	.3	2.0	97.7
Cement finishers	64	3	1	60	1.4	.7	97.9
Electricians, inside wiremen	79	6	6	67	18.3	28.5	53.2
Elevator constructors	93		3	90		1.9	98.1
Engineers, portable and hoisting	158	5	16	137	3.8	5.7	90.5
Glaziers	49	3	2	44	2.6	.8	96.6
Granite cutters	36	1		35	5.3		94.7
Lathers	72	5	3	64	3.6	.3	96.1
Machinists	14		1	13		4.4	95.6
Marble setters	59	1	1	57	.2	.1	99.7
Mosaic and terrazzo workers	45	1	1	43	3.8	.2	96.0
Painters	72	1	1	70	.5	(1)	99.5
Plasterers	69	2		67	.6		99.4
Plumbers and gas fitters	70	4	2	64	3.3	4.9	91.8
Roofers, composition	40	1	1	38	1.1	.8	98.1
Roofers, slate and tile	33		1	32		.6	99.4
Sheet-metal workers	56	1		55	.3		99.7
Sign painters	60	1	2	57	1.6	2.1	96.3
Steam and sprinkler fitters	78	4	1	73	2.0	.6	97.4
Stonecutters	57		2	55		.7	99.3
Stonemasons	62	1	1	60	.5	(1)	99.5
Structural-iron workers	100		9	91		4.8	95.2
Tile layers	60	2	1	57	10.7	.3	89.0
Helpers and laborers	370	11	11	348	6.1	4.5	89.4
Building laborers	73	5	2	66	7.5	5.8	86.7
Composition roofers' helpers	10	1	1	8	.6	4.4	95.0
Elevator constructors' helpers	76	1	3	72	.3	1.9	97.8
Hod carriers (masons' tenders)	53	2	2	49	3.3	.7	96.0
Marble setters' helpers	29			29			100.0
Plasterers' laborers	45		2	43		5.4	94.6
Plumbers' laborers	12			12			100.0
Steam and sprinkler fitters' helpers	42	1	1	40	3.4	1.4	95.2
Tile layers' helpers	30	1		29	16.4		83.6

[1] Less than 1/10 of 1 percent.

Average Union Wage Rates and Hours in 1937 [2]

The average hourly wage rate of all the union members covered in the 1937 survey was $1.260, an increase of 3.3 cents per hour over the 1936 average. The average hourly rate of journeymen advanced 6.6 cents over the average for the preceding year. Every journeyman craft showed an increase in average rates from 1936 to 1937. The largest average increases were among the sign painters (13.6 cents), stonemasons (13.0 cents), plasterers (12.4 cents), structural-iron workers (11.5 cents), and engineers (10.8 cents).

Portable and hoisting engineers continued to be the best paid among the building trades, with an average wage of $1.555 an hour. Three other crafts—sign painters, boilermakers, and plasterers—also were above $1.50 an hour. Lowest average wage rates among the journeymen were $1.177 for granite cutters, $1.201 for composition roofers, $1.290 for carpenters, $1.296 for mosaic and terrazzo workers, $1.298 for stonecutters, and $1.299 for sheet-metal workers.

The average wage rate for helpers and laborers for 1937 was 81.8 cents. This is 1.5 cents lower than the average for 1936. This decline in the average rate in the face of an 8.8 percent rise in the index is traceable to decreases in the average wage rates for building laborers and hod carriers.[2] The decline in average for these two occupations is due to the fact that the membership in this union has grown much more rapidly among the lower paid workers in two ways. In the locals which had effective scales in 1936, the greatest membership gains were made by those with the lower rates. In addition, effective scales were introduced for the first time in 1937 in cities and types of work where no such scales applied in 1936. Building laborers added 4,990 members for whom no union scale functioned in 1936. The average wage of these workers was only 60.6 cents per hour, as opposed to an average of 79.1 cents for those for whom quotations were given in 1936. Similarly, hod carriers in new locals or brought under effective agreements for the first time in 1937 had an average wage rate of only 67.8 cents per hour, while the average for other hod carriers was 83.6 cents an hour. Thus, while the wage scales of union building laborers and hod carriers advanced from 1936 to 1937, the average of all such workers under union scales in 1937 was lower because the union had extended its scope to include a larger number of the lower paid workers.

With the increases secured during the year, three of the helpers and laborers groups—marble setters' helpers, plasterers' laborers, and elevator constructors' helpers—came to within 1 cent of an average wage of $1 an hour. The elevator constructors' helpers, the highest

[2] For a statement regarding the difference in use of index figures and average rates, see p. 1199.

paid among the helpers and laborers in 1936, was surpassed by both the marble setters' helpers and the plasterers' laborers in 1937.

Average hours per full-time week under union agreements increased slightly from 38.7 in 1936 to 39.0 in 1937. The average for journeymen for 1937 was 38.8 hours, that for helpers and laborers 40.1 hours. The highest average hour scales, slightly over 40 per week, were among elevator constructors and their helpers, machinists, granite cutters, composition roofers, and building laborers. The high figure for elevator constructors is due to the inclusion of maintenance workers whose hour scales are longer than on new construction.

TABLE 5.—*Average Union Wage Rates and Hours in the Building Trades, May 15, 1936, and May 15, 1937*

Trade	Average wage rate per hour		Average hours per week	
	1937	1936 [1]	1937	1936 [1]
All building trades	$1.260	$1.227	39.0	38.7
Journeymen	1.363	1.297	38.8	38.6
Asbestos workers	1.360	1.268	39.7	39.9
Boilermakers	1.517	1.504	39.5	39.6
Bricklayers	1.493	1.411	39.8	39.4
Carpenters	1.290	1.232	39.7	39.8
Cement finishers	1.316	1.246	39.9	39.8
Electricians, inside wiremen	1.406	1.359	37.9	35.9
Elevator constructors	1.360	1.318	40.4	40.5
Engineers, portable and hoisting	1.555	1.447	39.9	40.2
Glaziers	1.360	1.271	38.7	38.6
Granite cutters	1.177	1.143	40.3	40.1
Lathers	1.454	1.378	37.8	37.4
Machinists	1.344	1.216	40.4	40.3
Marble setters	1.439	1.393	39.8	39.9
Mosaic and terrazzo workers	1.296	1.237	39.8	39.6
Painters	1.312	1.247	35.8	35.4
Plasterers	1.509	1.385	36.8	37.2
Plumbers and gas fitters	1.407	1.352	40.0	39.8
Roofers, composition	1.201	1.183	40.2	40.1
Roofers, slate and tile	1.339	1.332	39.9	39.9
Sheet-metal workers	1.299	1.206	39.8	39.8
Sign painters	1.527	1.391	39.0	39.2
Steam and sprinkler fitters	1.421	1.351	39.6	39.7
Stonecutters	1.298	1.270	40.0	40.1
Stonemasons	1.448	1.318	39.9	39.8
Structural-iron workers	1.438	1.323	39.6	39.6
Tile layers	1.375	1.300	39.8	38.0
Helpers and laborers [2]	.818	.833	40.1	39.6
Building laborers	.774	.795	40.4	39.9
Elevator constructors' helpers	.991	.971	40.2	40.3
Hod carriers (masons' tenders)	.822	.840	39.9	39.8
Marble setters' helpers	.994	.893	40.0	40.0
Plasterers' laborers	.992	.928	38.0	37.8
Steam and sprinkler fitters' helpers	.945	.889	39.9	39.9
Tile layers' helpers	.925	.916	39.9	37.0

[1] 1936 averages have been recomputed to include data for machinists and boilermakers gathered in 1937. Minor corrections have also been made in some of the average figures.

[2] Includes also plumbers' laborers and composition roofers' helpers, not shown separately because of the small number of quotations obtained for these trades.

Lowest average hours were found among the painters (35.8), plasterers (36.8), lathers (37.8), electricians (37.9), and the plasterers' laborers (38.0). Although the helpers and laborers' scales averaged 1.4 hours longer than those for the journeymen as a whole, the differ-

ence was due mainly to the longer hours of building laborers. Except for plasterers' helpers, helpers in a particular trade had about the same average scale of hours as their journeymen.

Union Membership Under Effective Scales in Cities Covered

The total number of union members covered by agreements included in these annual surveys [3] serves as a measure of the amount of activity and employment in the building industry as well as the varying strength of organized labor in the building trades in the cities covered. In 1927 union membership under effective agreements in the trades and cities covered in these studies reached its highest peak since the post-war period. There was a sharp decline from 1927 to 1933 (table 6). Since this low point there has been a steady increase.

TABLE 6.—*Members Covered in Effective Union Scales in Building Trades in 70 Cities* [1]

Year	Total	Journeymen	Helpers and laborers	Year	Total	Journeymen	Helpers and laborers
1927	536,036	450,091	85,945	1933	295,117	262,994	32,123
1928	526,924	438,633	88,291	1934	303,148	271,944	31,204
1929	525,226	437,820	87,406	1935	307,360	271,704	35,656
1930	508,711	422,731	85,980	1936	341,906	289,269	52,637
1931	462,211	390,552	71,659	1937	[2] 412,502	[2] 333,273	79,229
1932	378,115	326,127	51,988				

[1] The study covered 66 cities in 1927. Madison, Wis., was added in 1928. In 1934, Bridgeport, Conn., Fall River, Mass., and Muskegon and Saginaw, Mich., were dropped and the following cities added: Duluth, Minn., Charleston, W. Va., El Paso and San Antonio, Tex., South Bend, Ind., Charlotte, N. C., and Oklahoma City, Okla. Thus the latter figures are not exactly comparable with the earlier figures. Since the last cities added had relatively fewer union members than the other cities covered, the resulting discrepancy is slight.

[2] Exclusive of machinists and boilermakers, which were first included in the survey in 1937.

The membership among helpers and laborers, which showed a more marked drop than that of the journeymen, also showed a more rapid recovery. The 1937 membership figures for this group stood at 89.7 of the 1928 peak. Journeyman membership in 1937 was 74.0 percent of the 1927 peak. At its low point in 1934, membership among helpers and laborers stood at 35.3 percent of its maximum figure, while the low for journeymen in 1933 was 58.4 percent of the peak.

The largest gain in membership in 1937 (81.6 percent) was recorded by the building laborers. A membership gain of 43.8 percent was made by the plasterers' laborers in the cities included in the surveys. While no journeyman crafts reported such large increases, substantial increases in members working under union scales occurred among carpenters, painters, plasterers, cement finishers, sheet-metal workers, structural-iron workers, and engineers.

[3] See pp. 1197–1199 for scope of surveys.

Scope and Method of the Study

Union scales of wages and hours in the building trades have been collected by the Bureau of Labor Statistics each year since 1907. The early studies included 39 cities. The coverage was gradually extended until, in the period from 1934 to date, 70 cities were included in the annual survey. These cities, located in 38 States and the District of Columbia, are:

Alabama: Birmingham.
Arkansas: Little Rock.
California: Los Angeles, San Francisco.
Colorado: Denver.
Connecticut: New Haven.
District of Columbia.
Florida: Jacksonville.
Georgia: Atlanta.
Illinois: Chicago, Moline, Peoria, Rock Island.
Indiana: Indianapolis, South Bend.
Iowa: Davenport, Des Moines.
Kansas: Wichita.
Kentucky: Louisville.
Louisiana: New Orleans.
Maine: Portland.
Maryland: Baltimore.
Massachusetts: Boston, Springfield. Worcester.
Michigan: Detroit, Grand Rapids.
Minnesota: Duluth, Minneapolis, St. Paul.
Missouri: Kansas City, St. Louis.
Montana: Butte.
Nebraska: Omaha.
New Hampshire: Manchester.
New Jersey: Newark.
New York: Buffalo, New York City, Rochester.
North Carolina: Charlotte.
Ohio: Cincinnati, Cleveland, Columbus, Dayton, Toledo, Youngstown.
Oklahoma: Oklahoma City.
Oregon: Portland.
Pennsylvania: Erie, Philadelphia, Pittsburgh, Reading, Scranton, York.
Rhode Island: Providence.
South Carolina: Charleston.
Tennessee: Memphis, Nashville.
Texas: Dallas, El Paso, Houston, San Antonio.
Utah: Salt Lake City.
Virginia: Norfolk, Richmond.
Washington: Seattle, Spokane.
West Virginia: Charleston.
Wisconsin: Madison, Milwaukee.

Two crafts—boilermakers and machinists working on building construction—have been included in the study for the first time this year. Data for these crafts were obtained not only as of May 15, 1937, but also as of May 15, 1936. It was thus possible to include them in the tabulations of changes in rates and hours between 1936 and 1937.

As far as possible, the rates collected were those actually in force on May 15. Interviews were held with 1,511 union representatives and over 2,180 quotations of rates were received. The union membership covered by these scales of wages and hours in these 70 cities was approximately 420,000.

Definitions.—A union scale is a scale of wages and hours agreed to by an employer (or group of employers) and a labor organization for persons who are actually working or would be working if there were work to be done in that locality. A union scale usually fixes a limit in one direction, that is, a minimum wage rate and maximum hours of work with specific provisions for overtime.

The union may (1) be either an independent local union or one affiliated with a national or international federation, (2) be an organization embracing one craft or more than one craft, or (3) have a contract with only one employer or more than one employer.

A collective agreement is a mutual arrangement between a union and employer (or group of employers) regarding wages and hours and other working conditions. Collective agreements are usually written and signed by both parties. Sometimes, however, there is merely an oral agreement. The Bureau has included scales in oral agreements only in those cases where there was clear evidence that the rates were actually in effect.

Apprentices and foremen.—A young person working in the trade for a definite number of years, for the purpose of learning the trade, and receiving instruction as an element of compensation, is considered an apprentice. Scales for apprentices are not shown. Scales for helpers in a number of trades are given. In some trades the work of helpers is performed at least in part by apprentices. Whenever it was found that helpers' work was done largely by apprentices, the rates for such helpers were omitted.

No rates are given for strictly supervising foremen or for individuals who are paid unusual rates because of some personal qualification as distinct from the usual trade qualifications.

Union rates and actual rates.—As mentioned above, the rates of wages and hours shown in this report were obtained from union business agents, secretaries, and other officials of local unions in the 70 cities visited. Over 75 percent of the rates were recorded in written agreements. In many cases, however, there is only an oral agreement between the union and the employer. Where no written records were on file in the union office, the Bureau representative listed the rates on a schedule which the union official then signed. If the Bureau representative had any reason to doubt the accuracy of these rates, he made further inquiry from persons who might be informed about the situation. It is believed that the rates listed in this report accurately represent the union scales in force on May 15.

It does not necessarily follow, however, that these rates are in all cases the actual wages paid or hours worked. The union scale usually fixes the minimum wages and maximum hours. More experienced and skilled workers may earn more than the union rate. This is especially true during periods of prosperity, when a plentiful supply of jobs creates competitive bidding for the better workmen. In periods of depression, in order to spread or share available work, actual hours worked are sometimes less than those provided in the union agreement. Where such a share-the-work policy was formally adopted by the union and in effect for the majority of the members, the adjusted scale of hours is used in this report rather than the theoretical scale appearing in the written agreement.

Union rates and prevailing rates.—It should be remembered that the rates quoted are for union members and for jobs worked on a union-contract basis. Union strength varies in the different cities and trades. Where practically all the workers of a particular trade belong to the local union, the union rate quoted is equivalent to the prevailing rate in the community. If only a few of the craftsmen belong to the union, the union rate may not be the actual prevailing rate. No attempt has been made in this study to discover what proportions of all the workers in each occupation, in each city, are members of their respective unions.

Averages.—The averages for each trade given in this report are weighted according to the number of members in the various local unions. Thus the averages reflect not only the specific rates provided for in union agreements but also the number of persons presumably benefiting from these rates.

Index numbers.—In the series of index numbers, the percent of change from year to year is based on averages computed from identical unions that reported for both years. The membership weights in both of the averages used in each year-to-year comparison are those reported for the second year. The index for each year is computed by multiplying the index for the preceding year by the ratio of the averages so obtained. The index numbers were revised on this basis in 1936 in order to eliminate the influence of changes in union membership which obscure the real changes in wages and hours.[4]

For the trends of actual union rates, the tables of indexes should be consulted (tables 1 and 2). For a measure of the wage and hour status of all union workers engaged in these trades at a particular time, the average rates should be used (table 5).

[4] The method of revision is described in U. S. Bureau of Labor Statistics Bull. No. 626: Union Scales of Wages and Hours in the Building Trades, May 15, 1936; and in the article under the same title in the Monthly Labor Review for December 1936 (pp. 1385–1408).

MONTHLY EARNINGS OF PROFESSIONAL ENGINEERS, 1929 TO 1934 [1]

THIS article is concerned with the monthly rate of compensation received by engineers solely for engineering services in which they were engaged at the end of 1929, 1932, and 1934.[2] The information on which this article is based was furnished the Bureau in its survey of the engineering profession, undertaken in May 1935 at the request of American Engineering Council.

Summary

In 1929, the range in monthly engineering earnings of professional engineers was very great. Some 79 engineers reported earnings of less than $60 per month, while 168 earned more than $1,880 a month. The median monthly earnings of the 28,511 reporting engineers was $289. One-quarter earned more than $415, while only 10 percent had earnings greater than $609 a month.

Between 1929 and 1934 there were progressive declines in monthly engineering earnings. While the sharpest absolute decreases occurred at the higher levels of earnings, the greatest percentage decreases took place at the lower earnings levels. Almost two-thirds of the decreases occurred between 1929 and 1932.

Comparison of earnings by professional class, without regard to age and the consequent effect of the varying age distributions, shows that in 1929 the upper 10 percent of mining and metallurgical engineers (highest at this level) reported earnings of not less than $792 per month as against $515 a month for civil engineers, who were lowest at this level. Second in order came chemical and ceramic engineers, followed by mechanical and industrial, and electrical engineers. For the upper 25 percent of the reporting engineers the order of the professional classes was the same, monthly engineering earnings ranging from not less than $372 for civil engineers to not less than $503 a month for mining and metallurgical engineers. At the middle and lower earnings levels, the differences in earning capacities of the 5 professional classes were less marked, although, in each instance, mining and metallurgical engineers and electrical engineers occupied the upper and lower extremes, respectively.

[1] Prepared by Andrew Fraser, Jr., of the Division of Wages, Hours, and Working Conditions.

[2] This is the seventh of a series of summary articles covering the results of the survey. A discussion of the educational qualifications of professional engineers is contained in the Monthly Labor Review for June 1936. Data on unemployment, employment, and security of employment in the engineering profession are to be found in the Monthly Labor Review for January, April, and May 1937, respectively. Information on annual income in the engineering profession, 1929 to 1934, will be found in the Monthly Labor Review for August (Part 1.—Income from all Sources) and September (Part 2.—Sources of Income) 1937.

In 1932 and 1934 the order of the professional classes at the two higher earnings levels was essentially the same as that noted for 1929. At the three lower earnings levels shifts occurred in this order in 1929 and there were further shifts in 1932 and 1934.

On an age basis the 1929 monthly compensation for engineering services of the lowest tenth of reporting engineers was more than twice as high for those in the age group 48 to 55 as for those of 23 years. At the upper 10-percent earnings level, maximum earnings of $1,050 a month were reached in the sixties. Similarly, at the average and at the upper and lower quarters earnings levels, age 60 was the turning point.

For men of identical ages in 1929, 1932, and 1934 the data reveal that the greatest impact of the depression, as far as engineering earnings were concerned, fell upon men with from 2 to 5 years' experience.

Although the 1929 data on engineering earnings evidence an advantage in favor of men who have engineering degrees, this advantage was less clearly defined than was the case with earned annual incomes. However, the extra years of experience which the "other" engineers had while the graduates were in school permitted of their obtaining higher earnings than graduates only up to a point corresponding to 5 years after graduation. Even at 2 years after graduation the differentials in earnings between the two groups were slight. Similarly, at 4 years after graduation, while at the median level graduate earnings ranged from $225 for first-degree electrical engineers to $250 a month for first-degree chemical and ceramic engineers, among the "other" engineers they ranged from $200 for engineers with secondary-school education to $229 a month for mechanical and industrial engineers with incomplete college courses.

With advancing age there was a considerable advantage in engineering earnings in favor of the graduates. There was also a distinct variation in the earning capacities among both graduates and "other" engineers.

The monthly engineering earnings of graduates continued to increase several years beyond the point of maximum earnings of "other" engineers. The earnings of the latter either remained stable or declined at 30 years after graduation.

While graduates who were 23½ in 1929 and 28½ in 1934 reported increased earnings for all kinds of engineering, except mining and metallurgical, no increases were reported by any of the "other" engineers of corresponding ages. For older engineers, however, the decreases apparently affected both graduates and "other" engineers in almost equal measure.

For men of identical years of experience, the earnings received in 1934 by both graduates and "other" engineers were all less than those which were obtained in 1929. The decreases reported by men with

5 years' experience were, in general, greater than those of men with 2 or with from 10 to 37 years' experience.

Scope and Method [3]

The earned annual incomes of any professional group are made up of earnings from professional work plus, in some cases, those received for other services. They are affected, moreover, by periods of partial or complete unemployment during the year. In this article an analysis is made of the compensation engineers received solely for professional services during periods of employment, based on the monthly rates of earnings reported for all kinds of engineering work combined.

As in the previous analyses of earned annual incomes, it has been necessary to assume that the kind of engineering employment reported for the end of the year was the source of the income for that year.

Monthly Engineering Earnings

Of the 33,852 engineers who reported as of December 31, 1929, that they were professionally active prior to 1930, 28,511, or 84 percent, stated their average monthly rates for the engineering work in which they were engaged. These 1929 data, together with the adjusted [4] figures for 1932 and 1934, are shown in table 1, without regard to age or kind of engineering employment reported.

TABLE 1.—*Comparison of 5 Levels of Monthly Engineering Earnings for All Professional Engineers Reporting in 1929, 1932, and 1934*

[Figures derived from adjusted data as explained above, and without regard to kind of engineering employment reported or type of education]

Percent at specified earnings level	Monthly engineering earnings of more than specified amount			Amount of decrease			Percent of decrease		
	1929	1932	1934	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34
10 percent	$609	$484	$435	$174	$125	$49	28.6	20.5	10.1
25 percent	415	334	304	111	81	30	26.7	19.5	9.9
50 percent	289	235	210	79	54	25	27.3	18.7	10.6
75 percent	215	167	148	67	48	19	31.2	22.3	11.4
90 percent	162	123	112	50	39	11	30.9	24.1	8.9

As in the case of earned annual incomes, the range in the 1929 monthly engineering earnings of professional engineers was very great. While some 79 engineers reported earnings of less than $60 per month, 168 earned more than $1,880 a month. The median monthly earn-

[3] See Annual Income in the Engineering Profession, 1929 to 1934, Part 1.—Income From All Sources, in Monthly Labor Review, August 1937 (pp. 414-418), for details of the scope and method of analysis.

[4] The procedure of adjustment adopted was similar to that outlined in the discussion Employment in the Engineering Profession, 1929 to 1934, in Monthly Labor Review, April 1937 (p. 861). The numbers of younger engineers reporting in each income class for 1932 and 1934 were reduced in the ratio of 15 to 32 and added to the corresponding figures reported by the older engineers in 1932 and 1934.

ings of the 28,511 reporting engineers was $289; one-quarter earned more than $415; and only 10 percent had earnings greater than $609 a month. The lowest 25 percent of the reporting engineers earned less than $215 a month, while the lowest 10 percent earned less than $162 a month.

Over the period 1929–34 the changes which occurred in monthly engineering earnings were similar to those previously noted in the discussion of earned annual incomes: (1) Earnings progressively declined from 1929 to 1934; (2) the sharpest absolute decreases occurred at the higher levels of earnings, but the greatest percentage decreases took place at the two lower income levels; (3) of the respective total decreases, almost two-thirds occurred between 1929 and 1932.

At all levels, however, the changes in monthly engineering earnings were very much less than those for earned annual incomes. This was due to the fact that annual earnings reflect the combined effects of several factors which were operative in the depression years: (1) The decline in engineering earnings; (2) the acute unemployment; (3) the deterioration in the nature of the available nonengineering work; and (4) the large influx of young engineers in the years 1930–34.

Clearly, earned annual income data cannot be used as a measure of the rates at which engineering services were purchased. Illustrative of this is the fact that in 1929 only at the two higher earnings levels did earned annual income exceed 12 times the monthly earnings reported solely from engineering services. In the years 1932 and 1934, the estimated annual earnings from engineering work only were greater at all five income levels. But while the lowest 10 percent of the reporting engineers had earned annual incomes of not less than $872 in 1934, the monthly rate of earnings at this level shows a possible income of not less than $1,344 a year from engineering work.

More particularly, however, while the lowest 10 percent of the reporting engineers engaged in engineering work in 1929 had earned not less than $162 per month, by 1934 the monthly earnings at this level were not less than $112. This was a decline of 30.9 percent. By contrast, the earned annual incomes of a similar proportion of engineers had declined by 53.6 percent. At the next highest income level, engineering earnings decreased by 31.2 percent, as against 41.3 percent in the case of earned annual incomes. Similarly, average monthly engineering earnings dropped by 27.3 percent, whereas annual incomes declined by 33.0 percent. This decline in the average earnings differed but little from those which occurred at the upper 10 and 25 percent of the reporting engineers, namely, 28.6 and 26.7 percent, respectively. The corresponding decreases in annual incomes of similar proportions of engineers were 31.2 and 31.6 percent. In other words, while the range in the decline in engineering earnings was from 26.7 to 31.2 percent, it was from 31.2 to 53.6 percent for annual incomes.

The findings and comments of the preceding analysis also apply to the engineering earnings reported by the five professional classes. These are shown, also without regard to age [5] or kind of engineering employment, in table 2.

TABLE 2.—*Comparison of 5 Levels of Monthly Engineering Earnings for All Engineers Reporting in Each Professional Class in 1929, 1932, and 1934*

[Figures derived from adjusted data as explained on page 1202, and without regard to kind of engineering employment reported or type of education]

Percent of professional class at specified earnings level [1]	Monthly engineering earnings of more than specified amount			Amount of decrease			Percent of decrease		
	1929	1932	1934	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34
10 percent:									
Mining and metallurgical	$792	$585	$524	$268	$207	$61	33.8	26.1	10.4
Chemical and ceramic	732	579	509	223	153	70	30.5	20.9	12.1
Mechanical and industrial	674	512	441	233	162	71	34.6	24.0	13.9
Electrical	587	496	463	124	91	33	21.1	15.5	6.7
Civil, agricultural, and architectural	515	430	390	125	85	40	24.3	16.5	9.3
25 percent:									
Mining and metallurgical	503	409	371	132	94	38	26.2	18.7	9.3
Chemical and ceramic	490	400	339	151	90	61	30.8	18.4	15.2
Mechanical and industrial	455	356	313	142	99	43	31.2	21.8	12.1
Electrical	405	336	315	90	69	21	22.2	17.0	6.2
Civil, agricultural, and architectural	372	311	279	93	61	32	25.0	16.4	10.3
50 percent:									
Mining and metallurgical	334	274	241	93	60	33	27.8	18.0	12.0
Chemical and ceramic	326	251	203	123	75	48	37.7	23.0	19.1
Mechanical and industrial	311	246	215	96	65	31	30.9	20.9	12.6
Civil, agricultural, and architectural	277	229	205	72	48	24	26.0	17.3	10.5
Electrical	275	232	215	60	43	17	21.8	15.6	7.3
75 percent:									
Mining and metallurgical	241	183	154	87	58	29	36.1	24.1	15.8
Mechanical and industrial	225	166	145	80	59	21	35.6	26.2	12.7
Chemical and ceramic	221	157	131	90	64	26	40.7	29.0	16.6
Civil, agricultural, and architectural	213	169	150	63	44	19	29.6	20.7	11.2
Electrical	201	163	148	53	38	15	26.4	18.9	9.2
90 percent:									
Mining and metallurgical	186	125	115	71	61	10	38.2	32.8	8.0
Civil, agricultural, and architectural	167	126	120	47	41	6	28.1	24.6	4.8
Mechanical and industrial	167	122	107	60	45	15	35.9	26.9	12.3
Chemical and ceramic	156	116	101	55	40	15	35.3	25.6	12.9
Electrical	148	123	108	40	25	15	27.0	16.9	12.2

[1] Arranged in ascension of monthly engineering earnings for 1929.

In 1929, the upper 10 percent of mining and metallurgical engineers, highest at this level, had earnings of not less than $792 per month as against $515 for civil engineers, who were the lowest at this level. Second in order came chemical and ceramic engineers, of whom the upper 10 percent had monthly earnings of not less than $732, followed by mechanical and industrial engineers, and electrical engineers, respectively, with not less than $674 and $587 a month. For the upper 25 percent of the reporting engineers the order of the professional classes was the same, monthly earnings ranging from not less

[5] It is important to note that any data concerning the several professional classes as a whole without regard to age tend to obscure the effects of different age distributions within the classes. Those classes with a relatively high proportion of older men for this reason are likely to show relatively high earnings, and those with relatively more younger men to show smaller earnings.

than $372 for civil engineers to not less than $503 a month for mining and metallurgical engineers. At the middle and two lower earnings levels, the differences in earning capacity were less marked. However, in each instance mining and metallurgical engineers and electrical engineers occupied the upper and lower extremes respectively. Civil engineers shifted from fourth place at the average earnings level to second at the lowest earnings level, while chemical and ceramic engineers shifted from second to fourth place. The ranges in monthly earnings over these three lower levels were respectively from not less than $275 to $334, $201 to $241, and $148 to $186.

Despite the progressive declines in engineering earnings between 1929 and 1934, the orders of the professional classes at the two higher levels were essentially the same as those noted for 1929. However, at the middle earnings level, chemical and ceramic engineers had dropped from second place in 1929 and 1932 to fifth by 1934; but even in 1934 their monthly engineering earnings were practically the same as those of the civil engineers, who were fourth in order. Mining and metallurgical engineers were highest both in 1932 and 1934. Thus in the latter year, while their median earnings were $241 a month, those of both mechanical and industrial engineers and electrical engineers were $215 a month.

At the lowest 25 percent earnings level of the reporting engineers, the lowest and highest figures for 1932 and 1934 were again reported, respectively, by chemical and ceramic engineers and mining and metallurgical engineers. At the same level in 1934 the range was from not less than $131 for chemical and ceramic engineers to not less than $154 for mining and metallurgical engineers. This reduction in the range of earnings was more pronounced at the lowest earnings level both in 1932 and 1934, for while in the former year it was from not less than $116 to not less than $126, in the latter it was from not less than $101 to not less than $120, the upper and lower extremes being reported respectively by the civil engineers and the chemical and ceramic engineers.

The decline in engineering earnings of each professional class was very much less than that which occurred in earned annual incomes. The greatest percentage decreases took place at the two lower levels. For example, while engineering earnings of electrical engineers at these limits declined by 26.4 and 27.0 percent, the corresponding annual incomes decreased by 42.6 and 56.0 percent. In the case of chemical and ceramic engineers, the drops in engineering earnings at these levels were 40.7 and 35.3 percent as against 52.2 and 63.8 percent in their annual incomes.

Monthly Engineering Earnings Related to Age

In table 3 there are presented the monthly engineering earnings, by age,[6] of all engineers combined and without regard to kind of engineering employment.

TABLE 3.—*Comparison of 5 Levels of Monthly Engineering Earnings, on Age Basis, for All Engineers Reporting in 1929, 1932, and 1934*

[Without regard to kind of engineering employment reported or type of education]

Age	Year of graduation	Years after graduation	Proportion with monthly engineering earnings of more than specified amount				
			10 per cent	25 per cent	50 per cent	75 per cent	90 per cent
			1929				
64 years and over	Prior to 1889	40 and over	$820	$601	$388	$262	$194
56–63 years	1889–96	33–40	1,050	628	425	296	210
48–55 years	1897–1904	25–32	933	592	414	297	232
40–47 years	1905–12	17–24	789	514	385	289	229
36–39 years	1913–16	13–16	630	467	339	269	218
32–35 years	1917–20	9–12	519	407	310	249	208
28–31 years	1921–24	5–8	404	317	262	217	187
26–27 years	1925–26	3–4	307	256	218	186	155
24–25 years	1927–28	1–2	252	215	181	152	133
23 years	1929	0	215	174	149	130	115
			1932				
67 years and over	Prior to 1889	44 and over	$725	$499	$331	$216	$144
59–66 years	1889–96	36–43	751	517	352	241	152
51–58 years	1897–1904	28–35	707	486	340	241	164
43–50 years	1905–12	20–27	624	433	315	234	168
39–42 years	1913–16	16–19	517	396	295	223	170
35–38 years	1917–20	12–15	458	349	272	211	157
31–34 years	1921–24	8–11	358	293	234	189	143
29–30 years	1925–26	6–7	299	244	205	166	135
27–28 years	1927–28	4–5	250	215	181	147	119
26 years	1929	3	221	185	156	134	110
25 years	1930	2	190	161	143	122	101
24 years	1931	1	173	149	126	104	84
23 years	1932	0	165	137	111	89	66
			1934				
69 years and over	Prior to 1889	46 and over	$620	$430	$284	$173	$108
61–68 years	1889–96	38–45	711	480	321	205	126
53–60 years	1897–1904	30–37	650	447	310	212	146
45–52 years	1905–12	22–29	592	413	292	214	152
41–44 years	1913–16	18–21	505	375	273	205	150
37–40 years	1917–20	14–17	440	336	254	197	148
33–36 years	1921–24	10–13	354	285	224	177	139
31–32 years	1925–26	8–9	299	238	199	161	133
29–30 years	1927–28	6–7	253	215	177	145	118
28 years	1929	5	228	191	162	138	113
27 years	1930	4	199	172	148	125	104
26 years	1931	3	182	156	137	114	94
25 years	1932	2	169	145	124	103	84
24 years	1933	1	159	138	116	98	82
23 years	1934	0	149	129	110	91	75

As shown in the table there was, in general, a steady advance in monthly earnings at all levels up to the highest age groups. Except

[6] Throughout the ensuing discussion age and years after graduation are used interchangeably. Of course, in the case of nongraduates (i. e. "other" engineers) age only applies. The relationship between these two factors can readily be derived from the fact that the median age of graduation of new graduates to the profession was found to be 23 years.

for the absence of the exceptionally rapid rise from 23 to 25 years, the changes with age in monthly engineering earnings at all 5 levels show no marked differences from those derived from the analysis of earned annual incomes by age. Thus, in 1929 the compensation for engineering services of the lowest tenth of the reporting engineers steadily increased from over $115 a month for those at age 23 to a maximum of over $232 a month for those who were between 48 and 55 years. At each of the four higher earnings levels maximum earnings were reached some 8 years later, or near to age 60. The respective maxima were not less than $297, $414, $592, and $1,050 per month. Even for engineers 23 years of age there was a considerable spread in earnings. This is evidenced by the fact that at the average level the earnings were not less than $149 a month, above this one-quarter earned over $174, and one-tenth over $215 per month, as against monthly engineering earnings of over $130 and $115 at the two lower levels.

The spread in engineering earnings with advancing age became quite marked at the age of 30; that is, some 8 years earlier than was the case for earned annual incomes. (See chart 1.) Again the earnings of the upper 10 percent of reporting engineers diverged sharply from those at corresponding ages in the lower levels. Thus, at age 44 the former were greater than the average by some 102 percent, as against a corresponding difference at the upper 25 percent level of only 33 percent. At age 60, the respective differences were 144 and 48 percent.

These general relationships of monthly engineering earnings by age of all engineers[7] reporting also held in the years 1932 and 1934, as well as for the monthly earnings of all graduates,[8] shown in table 4.

Consideration will now be given to the extent to which monthly engineering earnings may have been affected by the depression. Reference, however, will be made only to the data reported by all graduate and "other" engineers combined.

For men of advancing years and experience, it appears from the data presented in table 5 that over the period 1929–34 only those engineers who were 23½ years in 1929 and 28½ in 1934 reported increased earnings. Earnings of the next higher age group showed practically no change. For succeeding age groups the declines in earnings were progressively greater. Thus, while there was a 15-percent decrease between 1929 and 1934 at the middle level of earnings of engineers who were 30 in 1929 and 35 in 1934, the decrease was as high as 24 percent for engineers who were 65 years of age in 1934. A similar situation existed at the other four earnings levels, for all engineers, and also for graduate engineers only, as shown in table 6.

[7] That is, graduates and "other" engineers combined.

[8] That is, postgraduates, nonengineering graduates, and first-degree engineering graduates combined.

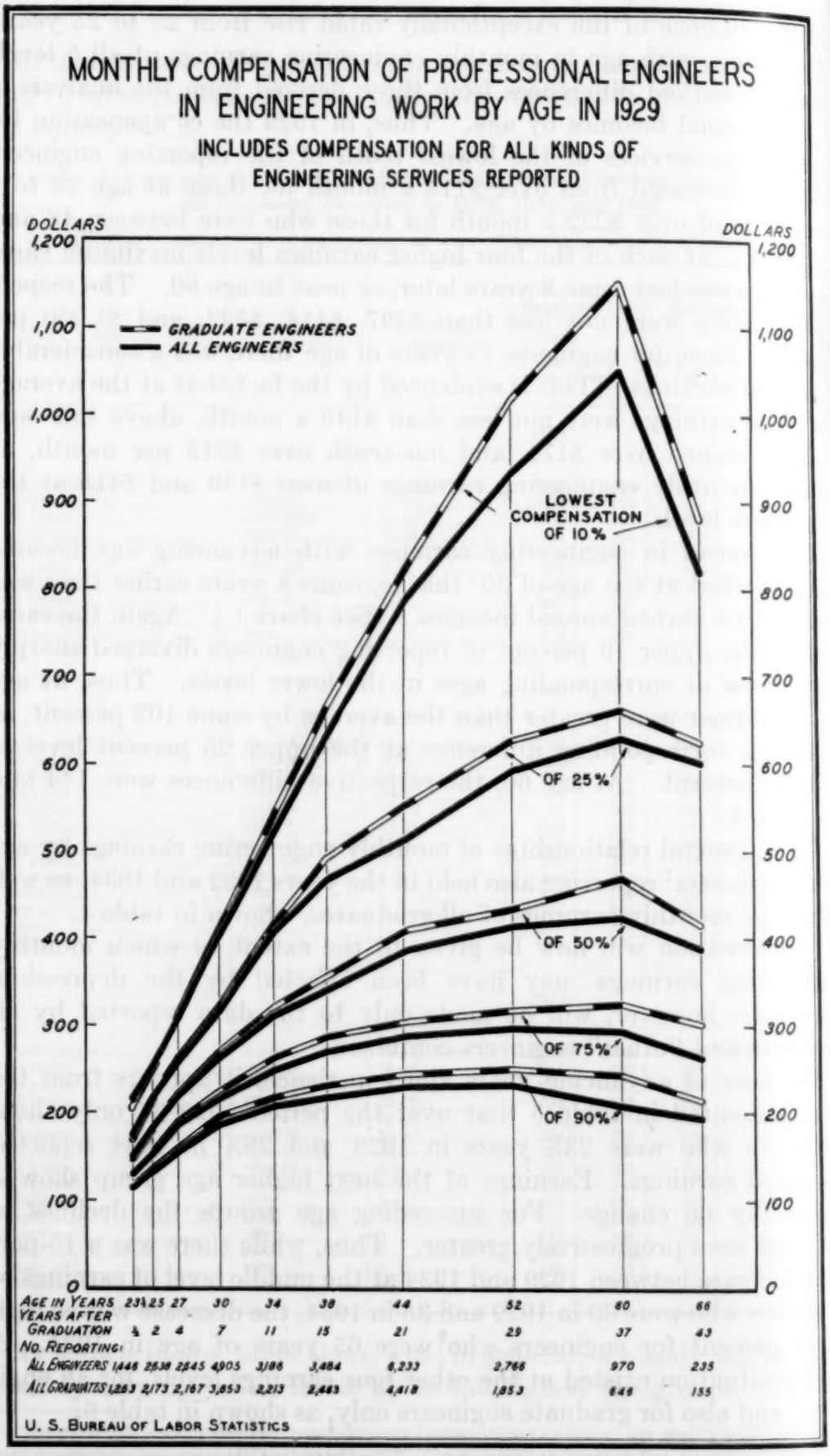

MONTHLY COMPENSATION OF PROFESSIONAL ENGINEERS IN ENGINEERING WORK BY AGE IN 1929
INCLUDES COMPENSATION FOR ALL KINDS OF ENGINEERING SERVICES REPORTED
DOLLARS
DOLLARS
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
GRADUATE ENGINEERS
ALL ENGINEERS
LOWEST COMPENSATION OF 10%
OF 25%
OF 50%
OF 75%
OF 90%
AGE IN YEARS 23½ 25 27 30 34 38 44 52 60 66
YEARS AFTER GRADUATION ½ 2 4 7 11 15 21 29 37 43
No. Reporting:
All Engineers 1,446 2,838 2,845 4,905 3,186 3,484 6,233 2,766 970 235
All Graduates 1,283 2,173 2,167 3,853 2,213 2,483 4,418 1,853 646 155
U. S. Bureau of Labor Statistics

TABLE 4.—*Comparison of 5 Levels of Monthly Engineering Earnings on Age Basis for All Graduate Engineers Reporting in 1929, 1932, and 1934*

[Without regard to kind of engineering employment reported or type of education]

Age	Year of graduation	Years after graduation	Proportion with monthly engineering earnings of more than specified amount				
			10 per-cent	25 per-cent	50 per-cent	75 per-cent	90 per-cent
			1929				
64 years and over	Prior to 1889	41 and over	$880	$624	$417	$302	$215
56-63 years	1889-96	33-40	1,152	661	472	326	243
48-55 years	1897-1904	25-32	1,018	625	434	319	252
40-47 years	1905-12	17-24	826	552	410	306	245
36-39 years	1913-16	13-16	663	490	356	286	231
32-35 years	1917-20	9-12	540	416	321	263	218
28-31 years	1921-24	5-8	410	322	269	223	196
26-27 years	1925-26	3-4	308	260	220	189	160
24-25 years	1927-28	1-2	247	213	180	152	135
23 years	1929	0	205	169	148	130	115
			1932				
67 years and over	Prior to 1889	44 and over	$778	$519	$350	$234	$173
59-66 years	1889-96	36-43	807	558	401	277	170
51-58 years	1897-1904	28-35	739	505	374	265	185
43-50 years	1905-12	20-27	653	458	334	248	178
39-42 years	1913-16	16-19	557	419	312	240	187
35-38 years	1917-20	12-15	480	365	288	223	171
31-34 years	1921-24	8-11	368	301	241	198	149
29-30 years	1925-26	6-7	302	251	210	172	141
27-28 years	1927-28	4-5	253	217	183	149	122
26 years	1929	3	219	184	156	135	113
25 years	1930	2	187	160	143	122	101
24 years	1931	1	171	148	125	104	84
23 years	1932	0	159	134	110	88	64
			1934				
69 years and over	Prior to 1889	46 and over	$636	$480	$307	$205	$110
61-68 years	1889-96	38-45	770	517	360	232	132
53-60 years	1897-1904	30-37	704	478	337	229	152
45-52 years	1905-12	22-29	626	431	313	226	158
41-44 years	1913-16	18-21	533	404	294	219	161
37-40 years	1917-20	14-17	461	354	271	210	157
33-36 years	1921-24	10-13	360	294	232	186	145
31-32 years	1925-26	8-9	303	242	205	169	140
29-30 years	1927-28	6-7	258	218	181	148	121
28 years	1929	5	228	192	164	140	115
27 years	1930	4	200	172	149	126	105
26 years	1931	3	180	156	137	114	94
25 years	1932	2	169	145	124	102	84
24 years	1933	1	159	137	116	98	82
23 years	1934	0	149	129	109	91	75

One important aspect of these engineering earnings is that it is now possible to determine the compensation younger engineers received for their engineering services. This information could not be obtained from the data on earned annual incomes for reasons previously cited. The principal reason, however, was that most engineers 23 years of age could not have worked a full year.[9] Many of the graduates estimated what their annual earnings would have been, based on what they had earned for the first 6 months after graduation. Obviously, this necessity for estimating does not apply to the monthly earnings for engi-

[9] This qualification applies only to graduate engineers, for in the case of "other" engineers many of them could have been working for a year or more.

neering work. Hence, the monthly earnings data are the most accurate indication of what the rates of compensation of younger engineers were for engineering work. This situation is best exemplified by considering the earnings reported by men who were of identical ages in 1929, 1932, and 1934, as presented in tables 7 and 8.

TABLE 5.—*Comparison of 5 Levels of Monthly Engineering Earnings for 5 Age Groups of Older* [1] *Engineers Reporting in 1929, 1932, and 1934*

[Without regard to kind of engineering employment reported or type of education]

Percent at specified income level	Monthly engineering earnings of more than specified amount of engineers whose age was—														
	60 in 1929	63 in 1932	65 in 1934	38 in 1929	41 in 1932	43 in 1934	30 in 1929	33 in 1932	35 in 1934	25 in 1929	28 in 1932	30 in 1934	23½ in 1929	26½ in 1932	28½ in 1934
10 percent	$1,050	$751	$711	$630	$517	$505	$404	$358	$354	$252	$250	$253	$215	$221	$228
25 percent	628	517	480	467	396	375	317	293	285	215	215	215	174	185	191
50 percent	425	352	321	339	295	273	262	234	224	181	181	177	149	156	162
75 percent	296	241	205	269	223	205	217	189	177	152	147	145	130	134	138
90 percent	210	152	126	218	170	150	187	143	139	133	119	118	115	110	113
	Percent of increase or decrease														
	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34
10 percent	−32	−28	−5	−20	−18	−2	−12	−11	−1	0	−1	+1	+6	+3	+3
25 percent	−24	−18	−7	−20	−15	−5	−10	−8	−3	0	0	0	+10	+6	+3
50 percent	−24	−17	−9	−19	−13	−7	−15	−11	−4	−2	0	−2	+9	+5	+4
75 percent	−31	−19	−15	−24	−17	−8	−18	−13	−6	−5	−3	−1	+6	+3	+3
90 percent	−40	−28	−17	−31	−22	−12	−26	−24	−3	−11	−11	−1	−2	−4	+3

[1] Includes those engineers who reported they were professionally active prior to 1930.

TABLE 6.—*Comparison of 5 Levels of Monthly Engineering Earnings for 5 Age Groups of Older* [1] *Graduate Engineers Reporting in 1929, 1932, and 1934*

[Without regard to kind of engineering employment reported or type of education]

Percent at specified income level	Monthly engineering earnings of more than specified amount of engineers whose age was—														
	60 in 1929	63 in 1932	65 in 1934	38 in 1929	41 in 1932	43 in 1934	30 in 1929	33 in 1932	35 in 1934	25 in 1929	28 in 1932	30 in 1934	23½ in 1929	26½ in 1932	28½ in 1934
10 percent	$1,152	$807	$770	$663	$557	$533	$410	$368	$360	$247	$253	$258	$205	$219	$228
25 percent	661	558	517	490	419	404	322	301	294	213	217	218	169	184	192
50 percent	472	401	360	356	312	294	269	241	232	180	183	181	148	156	164
75 percent	326	277	232	286	240	219	223	198	186	152	149	148	130	135	140
90 percent	243	170	132	231	187	161	196	149	145	135	122	121	115	113	115
	Percent of increase or decrease														
	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34
10 percent	−33	−30	−5	−20	−16	−4	−12	−10	−2	+4	+2	+2	+11	+7	+4
25 percent	−22	−16	−7	−18	−14	−4	−9	−7	−2	+2	+2	0	+14	+9	+4
50 percent	−24	−15	−10	−17	−12	−6	−14	−10	−4	+1	+2	−1	+11	+5	+5
75 percent	−29	−15	−16	−23	−16	−9	−17	−11	−6	−3	−2	−1	+8	+4	+4
90 percent	−46	−30	−22	−30	−19	−14	−26	−24	−3	−10	−10	−1	0	−2	+2

[1] Includes those engineers who reported they were professionally active prior to 1930.

These data reveal the fact that the newcomers to the profession suffered less than those with from 2 to 5 years' experience in engineering. Thus, while median monthly earnings of the newcomers were 26 percent less in 1934 than those of men of similar ages in 1929, they were 34 percent less in the case of men with from 2 to 5 years' experience in each of these years. But it will also be noted that the declines in earnings of engineers between 1929 and 1934 with from 20 to 37 years of experience were practically the same as those reported by engineers 23½ years of age. Furthermore, a similar relationship existed at the four other earnings levels, despite the fact that the declines in earnings were relatively greater in the case of engineers at the two lower earnings levels.

It will be recalled that in the discussion of employment status that as far as available engineering work was concerned, the tendency appeared to be to give preference to engineers who entered the profession in the period 1930–34. The analysis of the data in table 7 shows that it was not those engineers who entered the profession in 1934 who suffered relatively the greatest cuts but those who had entered during one or other of the depression years, 1930–33, inclusive. Similarly, data for earnings of graduates of identical ages are shown in table 8.

TABLE 7.—*Comparison of 5 Levels of Monthly Engineering Earnings of All Engineers for Corresponding Years After Graduation in 1929, 1932, and 1934*

[Without regard to kind of engineering employment reported or type of education]

Age of engineers	Years after graduation	Proportion with monthly engineering earnings of more than specified amount														
		10 percent			25 percent			50 percent			75 percent			90 percent		
		1929	1932	1934	1929	1932	1934	1929	1932	1934	1929	1932	1934	1929	1932	1934
23½ years	½	$215	$165	$149	$174	$137	$129	$149	$111	$110	$130	$89	$91	$115	$66	$75
25 years	2	252	180	160	215	152	140	181	133	120	152	114	102	133	92	82
28 years	5	339	250	210	276	215	187	231	181	153	196	147	130	167	119	109
33 years	10	485	358	314	386	293	248	299	234	205	239	189	162	202	143	134
43 years	20	741	559	505	501	405	375	375	301	273	283	227	205	228	169	150
53 years	30	940	685	617	592	462	428	416	332	299	296	240	211	230	164	148
60 years	37	1,050	733	670	628	497	459	425	349	313	296	242	209	210	157	137
		Percent of increase or decrease														
		1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34
23½ years	½	−31	−23	−10	−26	−21	−6	−26	− 6	−1	−30	−32	+2	−35	−43	+14
25 years	2	−37	−29	−11	−35	−29	−8	−34	−27	−10	−33	−25	−11	−38	−31	−11
28 years	5	−38	−26	−16	−32	−22	−13	−34	−22	−15	−34	−25	−12	−35	−29	−8
33 years	10	−35	−26	−12	−36	−24	−15	−31	−22	−12	−32	−21	−14	−34	−29	−6
43 years	20	−32	−25	−10	−25	−19	−7	−27	−20	−9	−28	−20	−10	−34	−26	−11
53 years	30	−34	−27	−10	−28	−22	−7	−28	−20	−10	−29	−19	−12	−36	−29	−10
60 years	37	−36	−30	−9	−27	−21	−8	−26	−18	−10	−29	−18	−14	−35	−25	−13

TABLE 8.—*Comparison of 5 Levels of Monthly Engineering Earnings of All Graduate Engineers for Corresponding Years After Graduation in 1929, 1932, and 1934*

Age of engineers	Years after graduation	Proportion with monthly engineering earnings of more than specified amount														
		10 percent			25 percent			50 percent			75 percent			90 Percent		
		1929	1932	1934	1929	1932	1934	1929	1932	1934	1929	1932	1934	1929	1932	1934
23½ years	½	$205	$159	$149	$169	$134	$129	$148	$110	$109	$130	$88	$91	$115	$64	$75
25 years	2	247	180	161	213	153	140	180	132	119	152	112	100	135	93	82
28 years	5	339	253	210	280	217	184	238	183	155	199	149	132	170	122	110
33 years	10	500	368	320	389	301	260	309	241	212	252	198	174	211	149	132
43 years	20	797	583	533	539	428	404	400	320	294	301	241	219	243	181	161
53 years	30	1,030	715	664	628	497	451	440	365	326	320	260	228	253	182	156
60 years	37	1,152	780	729	661	539	489	472	394	348	326	271	230	243	175	146
		Percent of increase or decrease														
		1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34	1929–34	1929–32	1932–34
23½ years	½	−27	−22	−6	−24	−21	−4	−26	−26	−1	−30	−32	+3	−35	−44	+17
25 years	2	−35	−27	−11	−34	−28	−8	−34	−27	−10	−34	−26	−11	−39	−31	−12
28 years	5	−38	−25	−17	−34	−23	−15	−35	−23	−15	−34	−25	−11	−35	−28	−10
33 years	10	−36	−26	−13	−33	−23	−14	−31	−22	−12	−31	−21	−12	−37	−29	−11
43 years	20	−33	−27	−9	−25	−21	−6	−27	−20	−8	−27	−20	−9	−34	−26	−11
53 years	30	−36	−31	−7	−28	−21	−9	−26	−17	−11	−29	−19	−12	−38	−28	−14
60 years	37	−37	−32	−7	−26	−18	−9	−26	−17	−12	−29	−17	−15	−40	−28	−17

Engineering Earnings and Education

Of all engineers who furnished information on the monthly rates of compensation received by them for engineering services in 1929, 21,205 were graduates and 7,305 were "other" engineers. The former number represented 86 percent of the 24,837 graduates, and the latter covered 81 percent of the 9,015 "other" engineers who reported that they were professionally active prior to 1930. A comparison of the engineering earnings of these two groups is shown, without regard to age and kind of engineering employment reported, in table 9.

Although the figures in the third from the last column in table 9 indicate an advantage in favor of those men who have engineering degrees, this advantage is less clearly defined than was indicated in the similar analysis of earned annual incomes. This is evidenced by the fact that only at the highest earnings level did the earnings of graduates of all five professional classes exceed those of "other" engineers. Even at this level, the advantage did not accrue in equal measure for each of the five professional classes.

Thus, while the monthly earnings of the upper one-tenth of the mining and metallurgical graduates exceeded those of the upper tenth of the "other" engineers by $94 a month, the differences in monthly engineering earnings among the four remaining professional classes ranged from $31 for mechanical and industrial engineers to $61 for chemical and ceramic engineers. At the upper 25 percent level, the engineering earnings of mechanical and industrial graduates and "other" engineers were practically the same. There was a difference

of only $13 between the earnings of the two groups in the case of mining and metallurgical engineers, and for electrical engineers the difference was only $22 a month. However, at this level, in the case of chemical and ceramic engineers and civil engineers the differences were much higher, being $61 and $62 per month respectively.

TABLE 9.—*Comparison of 5 Levels of Monthly Engineering Earnings for Older [1] Graduate and "Other" Engineers Reporting in Each Professional Class in 1929, 1932, and 1934*

[Without regard to kind of engineering employment reported]

Percent of professional class at specified earnings level [2]	Monthly engineering earnings of more than specified amount						Percent earnings of "other" engineers formed of those of graduate engineers		
	Graduate engineers [3]			"Other" engineers [4]					
	1929	1932	1934	1929	1932	1934	1929	1932	1934
10 percent:									
Mining and metallurgical	$803	$617	$612	$709	$501	$512	88	81	84
Chemical and ceramic	737	636	632	676	596	553	92	94	88
Mechanical and industrial	684	537	514	653	511	495	95	95	96
Electrical	594	516	505	557	504	482	94	98	95
Civil, agricultural, and architectural	544	463	427	478	385	352	88	83	82
25 percent:									
Mining and metallurgical	506	423	413	493	403	392	97	95	95
Chemical and ceramic	494	433	426	433	408	365	88	94	86
Mechanical and industrial	454	385	362	455	364	341	100	95	94
Electrical	408	357	352	386	336	319	95	94	91
Civil, agricultural, and architectural	397	336	313	335	290	268	84	86	86
50 percent:									
Mining and metallurgical	337	290	280	318	274	260	94	94	93
Chemical and ceramic	329	297	290	307	289	260	93	97	90
Mechanical and industrial	308	265	249	317	262	236	103	99	95
Civil, agricultural, and architectural	287	249	231	258	224	206	90	90	89
Electrical	276	252	246	272	238	229	99	94	93
75 percent:									
Mining and metallurgical	240	202	197	246	197	186	103	98	94
Chemical and ceramic	222	206	203	216	206	185	97	100	91
Mechanical and industrial	219	188	180	243	188	171	111	100	95
Civil, agricultural, and architectural	217	190	177	207	174	156	95	92	88
Electrical	199	187	187	206	179	168	104	96	90
90 percent:									
Mining and metallurgical	185	142	145	195	132	135	105	93	93
Civil, agricultural, and architectural	169	143	140	164	131	128	97	92	91
Mechanical and industrial	160	138	136	192	134	125	120	97	92
Chemical and ceramic	156	150	146	154	121	129	99	81	89
Electrical	145	145	144	159	128	126	110	89	88

[1] Includes all engineers who reported they were professionally active prior to 1930.

[2] Arranged in ascension of graduate monthly engineering earnings for 1929.

[3] Graduate engineers embrace all postgraduates, nonengineering graduates, and first-degree engineering graduates.

[4] "Other" engineers embrace all engineers with college course incomplete, noncollegiate technical school course, and secondary school education.

At these two earnings levels, the relationships between the earnings of graduates and "other" engineers in 1932 and 1934 were similar to those just noted for 1929.

At the average and at the two lower levels of earnings, the ratios of engineering earnings of the two groups of engineers were practically the same as those noted for earned annual incomes. That is, in 1929 there was a slight advantage in favor of the "other" engineers, which was maintained to a somewhat greater degree in 1932 and 1934 than was the case for earned annual incomes. In part, however, this advantage in earnings of "other" engineers was due primarily to a higher age among the nongraduates in the groups compared.

TABLE 10.—*Median Monthly Engineering Earnings in 1929, 1932, and 1934, for All Engineers Reporting by Age and Type of Education*
[Without regard to kind of engineering employment reported]

Age (in years)	Year of graduation	Years after graduation	Postgraduates	Nonengineering graduates	First-degree engineering graduates					Others with—				
										College course incomplete		Noncollegiate technical course		
					Chemical and ceramic	Civil, agricultural, and architectural	Electrical	Mechanical and industrial	Mining and metallurgical	Civil, agricultural, and architectural	Mechanical and all others	Civil, agricultural, and architectural	Mechanical and all others	Secondary-school education
			1929 earnings (in dollars)											
64 and over	(1)	41+	(2)	480	(2)	408	(2)	410	440	310	440	(2)	(2)	320
56–63	1889–96	33–40	484	493	510	424	484	506	493	315	420	347	380	360
48–55	1897–1904	25–32	455	482	493	407	438	483	437	318	423	286	402	353
40–47	1905–12	17–24	421	414	523	358	428	440	458	302	401	293	354	308
36–39	1913–16	13–16	350	416	487	328	368	405	405	273	335	269	326	310
32–35	1917–20	9–12	307	335	395	305	338	337	370	257	319	254	290	275
28–31	1921–24	5–8	266	255	295	260	264	285	284	220	267	218	253	233
26–27	1925–26	3–4	220	224	236	220	213	224	235	204	215	210	211	192
24–25	1927–28	1–2	180	166	179	187	167	180	183	184	193	187	186	183
23	1929	0	145	152	150	155	137	141	156	166	178	160	150	160
			1932 earnings (in dollars)											
67 and over	(1)	44+	(2)	260	(2)	336	(2)	420	(2)	247	380	(2)	(2)	295
59–66	1889–96	36–43	435	400	(2)	367	415	416	420	273	335	267	300	311
51–58	1897–1904	28–35	421	427	420	334	420	390	356	262	333	247	311	311
43–50	1905–12	20–27	365	384	443	307	353	351	374	258	326	249	289	273
39–42	1913–16	16–19	318	353	418	289	330	327	314	235	284	232	270	265
35–38	1917–20	12–15	294	305	324	262	309	301	300	226	263	222	244	234
31–34	1921–24	8–11	249	245	273	232	243	250	239	206	228	193	209	212
29–30	1925–26	6–7	220	227	223	208	202	211	206	187	189	180	180	173
27–28	1927–28	4–5	188	190	185	187	178	175	162	168	174	154	156	168
26	1929	3	157	149	149	164	152	152	149	149	148	163	150	130
25	1930	2	142	149	144	149	136	137	143	156	133	167	140	150
24	1931	1	119	120	124	134	118	120	114	145	131	(2)	135	140
23	1932	0	110	(2)	108	116	103	106	97	143	127	(2)	(2)	(2)
			1934 earnings (in dollars)											
69 and over	(1)	46+	(2)	250	(2)	306	(2)	330	(2)	210	310	(2)	(2)	280
61–68	1889–96	38–45	376	370	(2)	331	408	370	400	257	300	256	227	283
53–60	1897–1904	30–37	386	387	426	296	379	346	340	240	320	220	297	298
45–52	1905–12	22–29	339	353	425	285	349	333	347	236	301	227	261	252
41–44	1913–16	18–21	299	384	350	263	333	303	302	218	254	208	247	254
37–40	1917–20	14–17	279	305	340	244	300	283	311	201	247	199	228	229
33–36	1921–24	10–13	241	242	287	218	240	239	237	183	216	183	198	198
31–32	1925–26	8–9	217	208	228	198	205	207	207	166	184	158	180	162
29–30	1927–28	6–7	186	197	198	179	180	180	183	156	170	142	159	153
28	1929	5	166	164	170	163	162	165	153	145	153	160	150	134
27	1930	4	144	145	153	150	145	149	143	145	135	155	133	150
26	1931	3	137	131	134	143	127	132	143	137	145	110	131	153
25	1932	2	123	130	122	131	114	118	120	124	136	(2)	113	(2)
24	1933	1	120	123	114	126	109	110	118	126	117	(2)	138	(2)
23	1934	0	95	130	107	116	106	106	113	118	107	110	108	110

[1] Prior to 1889.

[2] Fewer than 10 engineers reported.

The advantages in increased earning capacity accruing from formal education are better seen in table 10, which shows the engineering earnings by type of education and by age. Only the median earnings are given, as insufficient data were obtained for the two lower and the

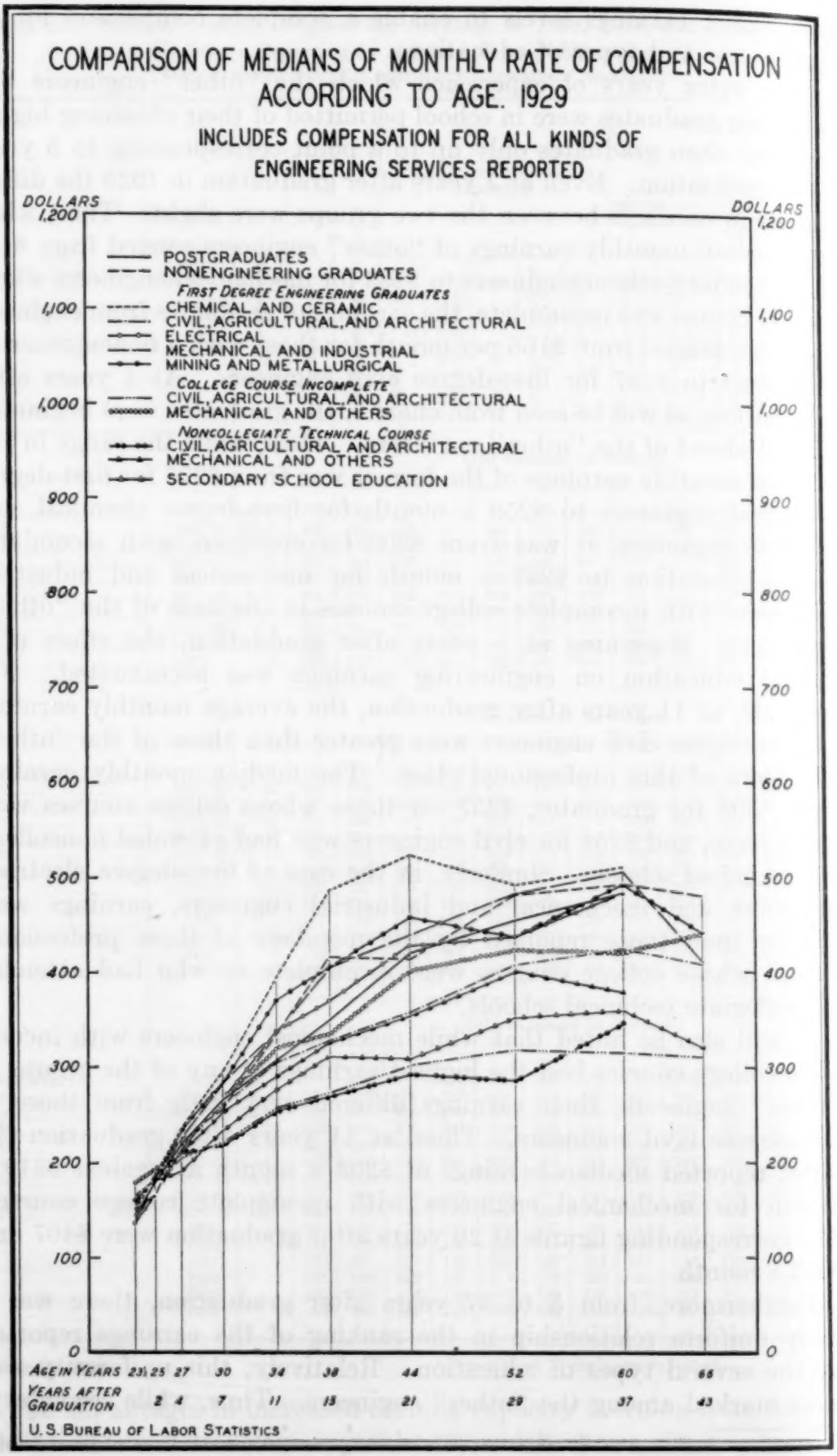
two higher earnings levels to enable a complete comparison for all age groups and types of education.

The extra years of experience which the "other" engineers had while the graduates were in school permitted of their obtaining higher earnings than graduates only up to a point corresponding to 5 years after graduation. Even at 2 years after graduation in 1929 the differentials in earnings between the two groups were slight. Thus, while the median monthly earnings of "other" engineers ranged from $183 for secondary-school engineers to $193 for mechanical engineers whose college course was incomplete, the earnings of graduates from engineering work ranged from $166 per month for those with a nonengineering education to $187 for first-degree civil engineers. At 4 years after graduation, as will be seen from chart 2, the graduates were beginning to pull ahead of the "other" engineers. Thus, while the range in the median monthly earnings of the former was from $225 for first-degree electrical engineers to $250 a month for first-degree chemical and ceramic engineers, it was from $200 for engineers with secondary-school education to $229 a month for mechanical and industrial engineers with incomplete college courses in the case of the "other" engineers. Beginning at 5 years after graduation, the effect of a formal education on engineering earnings was accentuated. For example, at 11 years after graduation, the average monthly earnings of first-degree civil engineers were greater than those of the "other" engineers of this professional class. The median monthly earnings were $305 for graduates, $257 for those whose college courses were incomplete, and $254 for civil engineers who had attended noncollegiate technical schools. Similarly, in the case of first-degree electrical engineers and mechanical and industrial engineers, earnings were greater than those reported by the members of these professional classes whose college courses were incomplete or who had attended noncollegiate technical schools.[10]

It will also be noted that while mechanical engineers with incomplete college courses had the highest earnings of any of the groups of "other" engineers, their earnings differed very little from those of first-degree civil engineers. Thus, at 11 years after graduation the latter reported median earnings of $305 a month as against $319 a month for mechanical engineers with incomplete college courses. The corresponding figures at 29 years after graduation were $407 and $423 a month.

Furthermore, from 5 to 37 years after graduation, there was a fairly uniform relationship in the ranking of the earnings reported by the several types of education. Relatively, this uniformity was most marked among the "other" engineers. Thus, while secondary-

[10] The term, "mechanical and all others" shown in table 9 under "college course incomplete" and "noncollegiate technical schools" includes chemical and ceramic, electrical, industrial, and mining and metallurgical engineers.


COMPARISON OF MEDIANS OF MONTHLY RATE OF COMPENSATION ACCORDING TO AGE. 1929
INCLUDES COMPENSATION FOR ALL KINDS OF ENGINEERING SERVICES REPORTED
DOLLARS
DOLLARS
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
POSTGRADUATES
NONENGINEERING GRADUATES
First Degree Engineering Graduates
CHEMICAL AND CERAMIC
CIVIL, AGRICULTURAL, AND ARCHITECTURAL
ELECTRICAL
MECHANICAL AND INDUSTRIAL
MINING AND METALLURGICAL
College Course Incomplete
CIVIL, AGRICULTURAL, AND ARCHITECTURAL
MECHANICAL AND OTHERS
Noncollegiate Technical Course
CIVIL, AGRICULTURAL AND ARCHITECTURAL
MECHANICAL AND OTHERS
SECONDARY SCHOOL EDUCATION
AGE IN YEARS 23 25 27 30 34 38 44 52 60 66
YEARS AFTER GRADUATION 2 4 7 11 15 21 29 37 43
U. S. BUREAU OF LABOR STATISTICS

school engineers remained tenth in order, civil engineers whose college courses were incomplete, or who had attended noncollegiate technical schools, held respectively eleventh and twelfth places. Over the same period, first-degree chemical and ceramic engineers were first in order. They did, however, rank tenth at 2 years after graduation. Among the remaining types of education such shifts as did occur were not very pronounced. Even in 1934, the same relative positions were maintained.

With advancing age, the 1929 data show that there was a considerable advantage in engineering earnings in favor of the graduates. Thus, between civil engineers who had first degrees and those who had incomplete college courses, the differences for men 23, 33, 43, 53, and 60 years of age were $24, $45, $55, $93, and $109 a month, while between those with first degrees and noncollegiate technical school educations, the corresponding differences were $20, $48, $65, $118, and $77 a month.

There was also a distinct variation in the earning capacities among both graduate and "other" engineers. Thus, at 10 years after graduation, the 1929 median monthly engineering earnings of graduates ranged from $290 for civil engineers to $368 for chemical and ceramic engineers. Graduates' median earnings 30 years after graduation ranged from $408 for civil engineers to $492 in the case of chemical and ceramic engineers. For "other" engineers, the range in earnings of men whose ages corresponded to 10 years after graduation, that is 33 years, was from $242 to $300 a month; and at 53 years of age, or corresponding to 30 years after graduation, the range was from $290 to $422 a month. At both of these age points, the lowest earnings among "other" engineers were reported by noncollegiate-technical school civil engineers, the highest by mechanical and industrial engineers with incomplete college education.

A further advantage of formal engineering education was that graduate earnings from engineering work continued to increase for several years beyond the point of maximum earnings of "other" engineers. The earnings of the latter either remained stable or declined at 53 years of age.

Consideration will now be given to the effect of the depression on earnings of men with advancing years and experience and different educational backgrounds.

Over the period 1929–34, the data in table 11 indicate that the graduates who were 23½ years in 1929 and 28½ years in 1934 received increased earnings for all kinds of engineering, except in the case of mining and metallurgical. There were, however, no increases reported by any of the "other" engineers of corresponding ages. By contrast, for the selected age groups of 52 to 57 and 44 to 49 years, decreases in earnings occurred among both graduate and "other" engineers in

almost equal measure. For example, for engineers who were 44 years in 1929 and 49 in 1934, the earnings of the graduates declined from 19 to 24 percent, while those of the "other" engineers fell by 18 to 25 percent.

TABLE 11.—*Comparison of Median Monthly Engineering Earnings in 1929, 1932, and 1934, of Selected Age Groups of Engineers Reporting, by Type of Education*

[Without regard to kind of engineering employment reported]

Type of education	Engineers whose age was—														
	60 in 1929	63 in 1932	65 in 1934	52 in 1929	55 in 1932	57 in 1934	44 in 1929	47 in 1932	49 in 1934	25 in 1929	28 in 1932	30 in 1934	23½ in 1929	26½ in 1932	28½ in 1934
	Median monthly engineering earnings														
Postgraduates	$484	$435	$376	$455	$421	$386	$421	$365	$339	$180	$188	$186	$145	$157	$166
Nonengineering graduates	493	400	370	482	427	387	414	384	353	166	190	197	152	149	164
First-degree engineering graduates:															
Chemical and ceramic	510	(1)	(1)	493	420	426	523	443	425	179	185	198	156	149	170
Civil, agricultural, and architectural	424	367	331	407	334	296	358	307	285	187	187	179	155	164	163
Electrical	484	415	408	438	420	379	428	353	349	167	178	180	137	152	162
Mechanical and industrial	506	416	370	483	390	346	440	351	333	180	175	180	141	152	165
Mining and metallurgical	493	420	400	437	356	340	458	374	347	183	162	183	156	149	153
College course incomplete:															
Civil, agricultural, and architectural	315	273	257	318	262	240	302	258	236	184	168	156	166	149	145
Mechanical and others [2]	420	335	300	423	333	320	401	326	301	193	174	170	178	148	153
Noncollegiate technical course:															
Civil, agricultural, and architectural	347	267	256	286	247	220	293	249	227	187	154	142	160	163	160
Mechanical and others [2]	380	300	227	402	311	297	354	289	261	186	156	159	150	150	159
Secondary-school education	360	311	283	353	311	298	308	273	252	183	168	153	160	130	134
	Percent of increase or decrease—														
	1929 to 1934	1929 to 1932	1932 to 1934	1929 to 1934	1929 to 1932	1932 to 1934	1929 to 1934	1929 to 1932	1932 to 1934	1929 to 1934	1929 to 1932	1932 to 1934	1929 to 1934	1929 to 1932	1932 to 1934
Postgraduates	−22	−10	−14	−15	−7	−8	−19	−13	−7	+3	+4	−1	+14	+8	+6
Nonengineering graduates	−25	−19	−8	−20	−11	−9	−15	−7	−8	+19	+14	+4	+8	−2	+10
First-degree engineering graduates:															
Chemical and ceramic	(1)	(1)	(1)	−14	−15	+1	−19	−15	−4	+11	+3	+7	+13	−1	+14
Civil, agricultural, and architectural	−22	−13	−10	−27	−18	−11	−20	−14	−7	−4	0	−4	+5	+6	−1
Electrical	−16	−14	−2	−13	−4	−10	−18	−18	−1	+8	+7	+1	+18	+11	+7
Mechanical and industrial	−27	−18	−11	−28	−19	−11	−24	−20	−5	0	−3	+3	+17	+8	+9
Mining and metallurgical	−19	−15	−5	−22	−19	−4	−24	−18	−7	0	−11	+13	−2	−4	+3
College course incomplete:															
Civil, agricultural, and architectural	−18	−13	−6	−25	−18	−8	−22	−15	−9	−15	−9	−7	−13	−10	−3
Mechanical and others [2]	−29	−20	−10	−24	−21	−4	−25	−19	−8	−12	−10	−2	−14	−17	+3
Noncollegiate technical course:															
Civil, agricultural, and architectural	−26	−23	−4	−23	−14	−11	−23	−15	−9	−24	−18	−8	0	+2	−2
Mechanical and others [2]	−40	−21	−24	−26	−23	−5	−26	−18	−10	−15	−16	+2	0	0	0
Secondary-school education	−21	−14	−9	−16	−12	−4	−18	−11	−8	−16	−8	−9	−16	−19	+3

[1] Fewer than 10 engineers reported.

[2] Includes chemical and ceramic, electrical, industrial, and mining and metallurgical engineers.

On the other hand, for men with identical years of experience, the earnings received in 1934 by both graduates and "other" engineers were all less than those which were obtained in 1929. Thus, in table 12 it will be noted that at 2 years after graduation the earnings obtained for engineering services in 1934 were less than those received

in 1929 by from 32 to 41 percent for all types of education, except nonengineering graduates and those engineers with a secondary-school education. In the case of nonengineering graduates, the earnings were 24 percent less and for engineers with secondary-school educations they were 29 percent less.

TABLE 12.—*Percentage Decreases in Median Monthly Engineering Earnings Over Period 1929–34, for Corresponding Years After Graduation, by Type of Education*

[Without regard to kind of engineering employment reported]

Type of education	Percent of decrease in earnings at specified years after graduation					
	2	5	10	20	30	37
Postgraduates	32	34	24	26	21	21
Nonengineering graduates	24	33	30	[1] 8	23	23
First-degree engineering graduates:						
Chemical and ceramic	34	36	33	31	14	([2])
Civil, agricultural, and architectural	32	32	30	25	29	27
Electrical	34	33	31	20	18	19
Mechanical and industrial	39	35	32	[1] 10	30	30
Mining and metallurgical	37	42	37	32	22	27
College course incomplete:						
Civil, agricultural, and architectural	33	30	31	26	24	21
Mechanical and others [3]	34	37	36	34	27	25
Noncollegiate technical course:						
Civil, agricultural, and architectural	41	26	31	27	23	33
Mechanical and others [3]	36	37	34	29	31	24
Secondary-school education	29	28	34	18	23	19

[1] Despite the fact that at 20 years after graduation, nonengineering graduates and mechanical and industrial engineers show only 8- and 10-percent decreases in earnings, the consistency of the remaining decreases shown is too regular for these particular differences to have any effect on the general argument.

[2] Fewer than 10 engineers reported.

[3] Includes chemical and ceramic, electrical, industrial, and mining and metallurgical engineers.

Again it will be noted that the decreases reported by men with 5 years' experience were, in general, greater than those for men who had had but 2 years' experience and also greater than the declines in earnings reported for men with from 10 to 37 years' experience.

WAGE INCREASES FOR STEAM-RAILROAD EMPLOYEES

WAGE increases for more than a million railroad employees were provided in two national agreements recently entered into by railroads operating more than 90 percent of the class I mileage of the country, represented by the Carriers' Conference Committee, and 19 standard railroad labor organizations. Both agreements were reached through the mediatory activities of the National Mediation Board. In each case settlement came after the unions concerned had taken a strike vote.

The first agreement, signed in Washington on August 5, 1937, provided an increase of 5 cents an hour for approximately 800,000

members of 14 unions representing "nonoperating" employees.[1] It is estimated that the resulting wage increases will amount to $98,000,000 a year.

On October 3, 1937, the 5 operating brotherhoods[2] reached an agreement with the same railroads providing a pay increase of 44 cents a day for 250,000 employees in engine, train, and yard service. The railroads estimate that these increases will total $35,000,000 a year.

The agreements are noteworthy for several reasons. They continue the principle of determination of railroad wage rates on a national scale initiated in the 1932 conference, which effected a 10 percent wage deduction, and carried forward in the agreements which maintained that deduction and in the agreement of 1934 which provided for restoration of the pay cut. The large number of workers covered is significant, the agreement of August 5 affecting more workers than any agreement in the history of collective bargaining in the United States, except the previous national agreements just mentioned.

The negotiations are an example of the method by which craft unions have cooperated in obtaining a single agreement to cover all or a substantial portion of the workers in an industry. The procedures by which the two agreements were reached demonstrate again the effectiveness of the mediation machinery of the National Mediation Board in an industry in which collective bargaining has become well established.

Negotiations resulting in the wage increase for the nonoperating organizations were started in March 1937, when the unions presented to the individual railroads demands for certain changes in the existing agreements. The unions asked for the following: 1. Increase in wages of 20 cents per hour, applied to hourly, daily, weekly, monthly, or piece rates so as to produce the same increase for all employees; 2. Guaranty of full-time compensation for all regular assigned forces; 3. Guaranty of two-thirds of full-time compensation for all stand-by forces.

Following conferences with the individual roads, it was agreed in May to settle the questions raised in a national conference. Negotiations were conducted by the heads of the unions concerned and by 14 representatives of the railroads. The railroads in the eastern and western sections of the country were represented on the con-

[1] Brotherhood of Railway and Steamship Clerks; Brotherhood of Maintenance of Way Employees; Brotherhood of Railroad Signalmen; Order of Railroad Telegraphers; International Brotherhood of Firemen and Oilers; International Brotherhood of Railway Carmen; International Brotherhood of Boilermakers, Iron Ship Builders and Helpers; International Association of Machinists; International Brotherhood of Blacksmiths, Drop Forgers, and Helpers; Sheet Metal Workers International Association; International Brotherhood of Electrical Workers; Marine Engineers Beneficial Association; International Longshoremen's Association; National Organization of Masters, Mates, and Pilots of America.

[2] Grand International Brotherhood of Locomotive Engineers; Brotherhood of Locomotive Firemen and Enginemen; Order of Railway Conductors; Brotherhood of Railway Trainmen; and Switchmen's Union of North America.

ference committee by five men and those in the southeastern section by four men. The board of directors of each road concerned had given the representatives of their section authority to sign for the road whenever they were in unanimous agreement that the best terms had been reached.

When the conferences had apparently reached a deadlock, the unions called for a strike vote among their members. The result was overwhelmingly in favor of authorizing the calling of a strike if deemed necessary. In the face of this emergency, the National Mediation Board on June 29 offered its services as mediator.[3] The offer was accepted by both parties and on July 16 the Board's representative began his efforts to effect an agreement. The agreement, retroactive to August 1, was signed on August 5, and was duly ratified on August 14 by the general chairmen of the unions concerned.

The terms of the agreement, as announced by the National Mediation Board,[4] were as follows:

1. It is understood and agreed that all hourly, daily, weekly, monthly, or piece rates will be increased effective August 1, 1937, in the amount of 5 cents per hour, applied so as to produce the same increase irrespective of method of payment. This applies to all employees represented by the labor organizations signatory hereto.

2. Share-the-work practices, however established, will be terminated on request of the general chairmen. No such request shall be made, however, prior to September 1, 1937. This is intended to bring our regular employment to such forces as are required by each carrier. Forces will be increased or decreased in conformity with the seniority rules (or supplementary agreements while in effect) on the individual carriers.

3. This agreement shall continue in force from its effective date until changed or modified in accordance with the provisions of the Railway Labor Act.

4. The terms of this agreement are subject to ratification by the general chairmen of the labor organizations signatory hereto.

Early in March the five operating brotherhoods asked for a revision of the existing agreement to provide for a wage increase of 20 percent. The course of events was, in general, similar to that in the case of the nonoperating brotherhoods, the negotiations being conducted with the same representatives of the railroads. On August 26, when a deadlock had been reached and preparations made to set a strike date, the National Mediation Board offered its services. The offer was accepted and the strike call canceled. After more than a month of negotiation, an agreement was reached on October 3, retroactive to October 1, providing among other things for an increase of 44 cents a day in the pay of each employee.

[3] The act provides that "the Mediation Board may proffer its services in case any labor emergency is found by it to exist at any time" (Public, No. 442, sec. 5).

[4] Case No. A-395, Mediation Agreement, Aug. 16, 1937.

The terms of the agreement, as announced by the National Mediation Board [5] were as follows:

General

1. (*a*) All basic daily rates of pay will be increased in the amount 44 cents per day.

(*b*) Mileage rates shall be determined by dividing the new daily rates by the miles constituting a basic day's work in the respective classes of service.

(*c*) Daily earnings minima shall be increased 44 cents.

(*d*) All arbitraries, miscellaneous rates, or special allowances as provided in the schedules or wage agreements shall be increased under this agreement in proportion to the daily increase herein granted.

(*e*) Existing money differentials above existing standard daily rates shall be maintained.

Train service

2. (*a*) Standard monthly rates and money monthly guaranties in passenger service shall be 30 times the new standard daily rate. Other than standard monthly rates and money monthly guaranties shall be so adjusted that differentials existing as of September 30, 1937, shall be preserved.

(*b*) Existing monthly rates and money monthly guaranties applicable in other than passenger service will be increased in the same proportion as the daily rate for the class of service involved is increased.

Engine service

3. In local freight service the same differential in excess of through freight rates as now paid shall be maintained.

Dining-car stewards

4. All monthly rates shall be increased $13.20.

Yardmasters

5. All monthly rates shall be increased $13.20.

6. This agreement is and shall be construed as a separate agreement by and in behalf of each carrier party hereto and each labor organization representing employees as hereinbefore stated; and shall be effective as of October 1, 1937, and shall remain in effect until changed or modified in accordance with the provisions of the Railway Labor Act.

COMPARATIVE LABOR STANDARDS IN TRANSPORTATION

THE RESEARCH and labor relations sections in the office of the Federal Coordinator of Transportation prepared a series of labor reports dealing with various phases of transportation. One of these, Comparative Labor Standards in Transportation, was prepared in March 1937 after the expiration of the Emergency Railroad Transportation Act of 1933 creating the office of the Federal Coordinator of

[5] Case No. A-410, Mediation Agreement. An introductory statement indicated that the agreement applied only to those crafts with which the particular railroad had an existing wage agreement at the time. Appendixes to the agreement indicated the crafts covered on each railroad.

Transportation. This report makes extensive use of the earlier studies and contains summaries and interpretations of data collected in 1933, 1934, and 1935 relating to labor standards in the principal fields of transportation. These fields are classified as railroads, water transportation, intercity truck and bus transportation, scheduled air transportation, and pipe-line transportation.

The term "labor standards" as used in the report "signifies whatever actually prevails in the way of hours, wages, and working conditions." The study deals with employee security and labor relations as well as hours and earnings. It is pointed out in the introduction that comparative standards are affected by such factors as the age of the different types of transportation, large-scale versus small-scale forms of business organization, and the extent of public regulation. In respect to regulation in its effects on labor standards, the report states (p. 12):

> Summing up, it may be said that the employee of a railroad is in the service of a fully regulated industry with a well-established Federal policy, expressed in the Railway Labor Act, with respect to the procedures for maintaining employer-employee relations on a satisfactory basis; that the employee of a carrier by water is in an inadequately regulated industry so far as rates, service, etc., are concerned, in one which is broadly regulated with respect to safety, but one in which no Federal policy with respect to labor relations, such as that which exists in the railroad industry, has been enunciated. The air industry is incompletely regulated in its economic phases, but is regulated as to safety and is subject to the Railway Labor Act. Effective regulation of motor carriers has only recently become possible and it embraces safety regulation. Pipe lines are subject to comprehensive rate regulation, but present special problems. In neither motor nor pipe-line transportation is there provision for the handling of labor matters, other than that provided by the National Labor Relations Act and the Conciliation Service of the Department of Labor and by such agreements as have been negotiated.

The following extracts from the report[1] summarize the statistics on hours of labor and earnings obtained by special surveys for 1933 and 1935.

Hours of Labor

The foregoing analysis has shown that both "long hours" and "short hours" are found in substantially every branch of transportation. In the railroad industry, for instance, the general observance of the 8-hour day and 48-hour week does not prevent about 13 percent of all employees, other than train and engine service workers, and executives from working in excess of 48 hours, or, on the other hand, preclude hours which are substantially less than 48 per week or 8 per day for large numbers of employees, principally in through road train and engine service, but also in certain maintenance occupations, particularly section labor, and in freight handling at docks. In some instances the daily and weekly hours of these employees are very short. The instances of long hours are generally associated with work which continues 7 days a week and which frequently presents special

[1] Comparative Labor Standards in Transportation, pp. 54–58, 66, 105–107.

difficulties in the way of providing relief men, whereas the cases of short hours are linked with increased train speeds and tie back into complex operating rules, with spread-work programs (section labor), or with the irregularity which characterizes freight handling at docks. The short hours of the maintenance employees are disappearing with improvement in rail traffic.

Water Transportation

In water transportation, short hours characterize the shore personnel as a whole, and long hours the vessel personnel. The short hours of longshoremen and freight handlers are the result of irregularity of work and underemployment rather than of regulation, company policy, or the demands of the workers. Agreements which these workers have obtained through collective bargaining call for a 6-hour day, 30-hour week on the Pacific Coast and an 8-hour day on the Atlantic Coast, but it does not appear that of themselves they have had any substantial effect on the hours actually worked. However, a regularization or decasualization plan developed on the west coast has probably increased average hours of work somewhat over what they had been, though no exact information is available on this point. The agreements enter mainly as a factor in the determination of earnings, as punitive rates apply for any work done in excess of 6 or 8 hours, respectively, in any day.

Long weekly hours (as contrasted with a 48-hour week) appear inevitable for the greater part of ship personnel in water transportation. Legislation, the voluntary action of operators, and labor unions have each contributed to a considerable reduction of the hours of deck and engine-room personnel aboard ship, but the necessity of maintaining continuous operation puts substantially all vessel employees on a 7-day basis while the ship is under way. The 3-watch system, which, except for overtime, produces the equivalent of an 8-hour day, prevails now for deck and engine-room personnel on all vessels except those plying bays, sounds, and rivers. The 2-watch system is generally observed in the latter waters. Generally, therefore, the 56-hour week is the normal minimum and it may be and commonly is increased by the overtime work, principally on entering and leaving port, which the deck crew must perform. Such overtime and that required under emergency conditions is permitted, though other important forms of overtime have recently been prescribed.

As yet not mentioned are the members of the steward's department. The hours of these employees are not covered by legislation and, being tied to the needs of both passengers and crews, are long as a general rule. The 12-hour day prevails for many of these workers, but even this long period of duty is exceeded as the result of overtime. Radio operators and pursers also put in long hours in many instances.

Air Transportation

In scheduled air transportation the shortest hours are those of co-pilots and hostesses. Flight-hours of pilots are also short, but considerable ground duty is also required. In October 1935, total hours of pilots averaged about 32 per week, but flight-hours amounted to only about 17 per week. In the interest of safety, hours of service of pilots are limited by Federal regulation and by the operators themselves. In July 1933, 44 percent of the ground personnel of the airlines worked from 50 to 60 hours per week, of whom 17 percent worked from 54 to 60 hours per week. Twenty percent or more of the dispatchers, inspectors, stock clerks, radio operators, chief mechanics, crew chiefs, janitors, unlicensed mechanics, and unlicensed mechanics' helpers were represented in the 54- to 60-hour group. Data obtained in 1934 and 1935, during the operation of a code for the air industry, indicated that a substantial lowering of hours had occurred, but no information is available as to whether such hours have continued to be maintained. Air transportation is a new industry employing a relatively small and somewhat scattered labor force. Its operating practices are still not fully developed.

Bus Transportation

Intercity bus transportation, not much older than scheduled transportation by air, is an industry whose departures from the 8-hour day 48-hour week standard are more largely in the direction of longer than of shorter hours. The comparatively small proportions of regular drivers, maintenance, and terminal and office employees who work less than 48 hours per week result mainly from underemployment as contrasted with short scheduled hours. On the other hand, about 48 percent of the regular drivers surveyed in the July 1933 field study were working 52 hours or more; 23 percent, 60 hours or more; and about 5 percent, 72 hours or more. In both this and the corresponding 1935 field study, two-fifths of the companies which reported a standard workday for drivers in terms of hours, maintained a basic day of 9 hours or more. Sixty-three percent of the maintenance and 44 percent of the station and office employees worked 52 hours or more per week in July 1933; 26.8 and 22.1 percent, respectively, 60 hours or more; but only 3 and 2 percent, respectively, 72 hours or more. Drivers' hours have varyingly been subject to State regulation and are now under examination by the Interstate Commerce Commission. Between July 1933 and October 1935, the average workweek of regular drivers surveyed in the field studies decreased by 8.8 hours, that of maintenance employees by 5.8 hours, and that of station and office employees by 4 hours. The effect on the range of hours of individual workers cannot be specifically stated.

Trucking

What has been said above about short hours applies for the most part to the intercity trucking industry as well. There is in this field, however, a relatively large class of employees—freight handlers—of whom proportionally more worked unusually short hours than employees in any other motor transport occupation. These hours resulted from irregularity of employment rather than from short scheduled hours. Their average hours, were, however, considerably above the average hours of freight handlers in either water or rail transportation. With reference to long hours, it is to be noted that 53 percent of the regular drivers who were surveyed in the July 1933, field study were working 52 hours or more per week, that 36 percent were working 60 hours or more, and that for 7 percent the hours worked were 72 or more. About 53 percent of the surveyed companies which reported a standard workday for drivers in terms of hours, maintained a basic day of 9 hours or more; in October 1935, the ratio was 57 percent. Of the maintenance employees surveyed in July 1933, 55 percent worked 52 hours or more per week; 31 percent, 60 hours or more; and 5 percent, 72 hours or more. In the case of terminal and office employees these ratios were 39, 22, and 2 percent, respectively. Average hours of regular drivers surveyed in the October 1935 field study were 0.7 less per week than those of such drivers surveyed in July 1933. For maintenance workers the reduction was 3.1 hours and for terminal and office workers, 0.8 hour. The effect of these reductions on the range of hours of individual employees cannot be specifically stated.

Pipe Lines

The pipe-line industry is distinguished from other branches of transportation in that it adheres rather generally to a 36-hour week. This short workweek was in large part a result of the provisions contained in the petroleum code set up under the National Industrial Recovery Act. It has been continued by most companies in the industry from the lapse of the code up to the present time. About one-ninth of the pipe-line employees were reported as working under 32 hours per week in the Department of Labor survey from which the information on pipe-line employees used in this report has been obtained. In most cases, the short hours of these employees resulted from part-time employment during the period of the survey. There is not, generally speaking, a long hours problem in this industry. Some evidence was obtained to the effect that a few independent operators maintain a 12-hour day, but no statistical data on their employees were secured. In the Department of Labor survey for August 1934, only 5 percent of all pipe-line employees were found to be working 44 hours per week or more.

The reader will have observed that the hours situations in the several branches of transportation varyingly reflect the influence of legislation

or administrative action (generally premised on considerations of safety but in some instances aimed more directly at the promotion of employee welfare), of company policy or operating practices, of the dictates of service schedules, and of union organization. The influence of labor organizations has been most strongly felt in rail transportation; of legislation or administrative action, in air and water transportation, and additionally of the operating requirements of the vehicle in water transportation; of considered policies of employers, in pipe-line transportation; and of competitive conditions over which individual operators and employees have had little control, in truck transportation.

Earnings

Data on ranges of hourly earnings or rates of pay * * * show a particular lack of uniformity in the case of common labor in each branch of transportation, with the partial exception of pipe-line roustabouts and laborers and longshoremen.[1] In most other common-labor occupations, substantial numbers of employees are found to receive relatively low earnings. This conclusion is as true of the railroad industry as of other branches of transportation. Between 125,000 and 145,000 section laborers are employed by railroads. They averaged 35.6 cents per hour in October 1935. For the pay-roll period nearest November 1, 1935, 14 percent were reported as receiving hourly rates of 30 cents or less and 41 percent, of 35 cents or less. In the southern district, 68 percent of all section laborers received 35 cents per hour or less. Similar, and in some cases greater, variations were found for railroad laborers in other occupations.

Number of Railroad Employees in Low-Wage Brackets, by Rates of Pay, for Pay-Roll Period Nearest Nov. 1, 1933 and 1935

Rate of pay, by time basis	1933		1935	
	Number of employees	Percent of total	Number of employees	Percent of total
Hourly and daily basis (per hour):				
15 cents and under	1,695	1.3	242	0.3
15 to 20 cents	15,442	11.8	8,025	8.2
20 to 25 cents	17,524	13.4	20,279	20.7
25 to 30 cents	36,244	27.7	21,724	22.2
30 to 35 cents	59,788	45.8	47,684	48.6
Total	130,693	100.0	97,954	100.0
Weekly and monthly basis (per week):				
$7.20 and under	771	3.1	973	5.1
$7.20 to $9.60	1,196	4.8	946	5.0
$9.60 to $12.00	3,090	12.4	2,368	12.4
$12.00 to $14.40	9,060	36.5	4,426	23.1
$14.40 to $16.80	10,730	43.2	10,414	54.4
Total	24,847	100.0	19,127	100.0
Total reported employees	155,540		117,081	

[1] The spread of union agreements covering longshore workers has materially lessened the disparity found in June 1933.

Earnings of less than 35 cents per hour were reported in the July 1933 field study for 49 percent of the baggage attendants, 78 percent of the janitors, and 55 percent of the garage and service employees of bus operators. In truck transportation, 41 percent of the freight handlers reported and 47 percent of the car washers and service men received less than 35 cents. In air transportation, 33 percent of the janitors and 23 percent of all other unskilled employees reported on in July 1933 received less than 35 cents. In all of these occupations, the differences between the highest and lowest rates were large.[2]

Marked variations in hourly earnings are also found among many of the skilled occupations. In bus and truck transportation, there are relatively small groups of drivers and mechanics who are in the high wage brackets. In many cases, these high rates of pay are determined by union agreements. Some licensed mechanics in air transportation also receive relatively high pay.

Examinaton of the range of earnings in an occupation in a single branch of transportation indicates that areas of low wages among skilled employees are found among bus and truck drivers, automobile mechanics, and, to a less extent, among mechanics in water transportation. In bus transportation, 21 percent of the mechanics, 77 percent of the mechanics' helpers, and 19 percent of the regular drivers received less than 45 cents per hour, according to the field study for July 1933. In the same month's field study for truck transportation, 30 percent of the mechanics, 84 percent of the mechanics' helpers, and 47 percent of the regular drivers were found to be receiving less than 45 cents per hour. In air transportation, 54 percent of the mechanics' helpers received less than this amount, but only 2 percent of the licensed mechanics, 3 percent of the radio mechanics, and 14 percent of the unlicensed mechanics. Mechanics in water transportation received particularly low compensation in some river operations in the Mississippi region. Regional differentials in average hourly earnings are usually pronounced in skilled occupations that contain large proportions of low-paid employees.

The foregoing conclusions are based on 1933 data. Increases have since occurred, as has been noted elsewhere, but low spots, in the sense indicated, continue to exist.

Owing in part to the need for highly specialized clerical forces, there are in certain clerical occupations in the railroad industry large numbers of employees who receive relatively high rates of pay. The clerical force of pipe-line companies is small. Information available indicates that in other branches of transportation, including the railroad industry, there are, however, substantial numbers of clerical and

[2] Attention is called to the fact that the percentages shown for railroads are based on rates of 35 cents or less, whereas the other percentages are based on rates of less than 35 cents. The difference in dates used needs also to be noted.

office workers who receive relatively low rates of pay when averages for a given occupation are compared with the range of earnings within that occupation.

Some of the variations in average hourly earnings that exist within a single form of transportation are, of course, related to the type of men employed and to differences in wage levels associated with various sections of the country. Standardization has hardly proceeded so far that all bus drivers or all mechanics or all airplane pilots are interchangeable, and some differences in wage levels are inevitable. Nevertheless, the variations are of such magnitude that they must be attributed in considerable part to differences in the wage standards observed by individual operators.

The degree of integration and financial strength and the extent of union organization in each branch of transportation go far to explain the differences that exist in the extent of uniformity or disparity in wage standards. Where one or both of these factors are not strong, many local variations in wage standards for the same type of work tend to continue. Thus, the extent to which wage rates have been standardized in the railroad and water transportation industry is largely associated with the growth of union organization. In the pipe-line industry, it is, on the other hand, associated with the financial strength and the organization of the industry. Since bus and truck transportation are new industries, union organization and amalgamation of operating units into large semimonopolistic enterprises have had less time to develop. Consequently, the forces that tend to make for disparities in wage levels have been strong while the forces that make for uniformity have been relatively weak.

WAGES ON STEAM RAILWAYS IN CANADA

IN 1935 the annual average of salaries and wages for employees on steam railways in Canada was $1,356 as compared with $1,283 in 1934, $1,299 in 1933, and $1,548 in 1929. The following table from the Canada Year Book, 1937, also gives such averages for each of the other years in the decade 1926–35 and the total salaries and wage bills for the railways for each year during the same period, together with the index numbers for these items.

Steam Railway Employees, and Salaries and Wages, 1926–35

[1926=100]

Years	Employees		Total salaries and wages		Average salaries and wages		Ratio of salaries and wages to—	
	Number	Adjusted index number	Amount	Adjusted index number	Amount	Adjusted index number	Gross earnings	Operating expenses
							Percent	*Percent*
1926	179,800	100.0	$260,350,390	100.0	$1,448	100.0	45.7	58.0
1927	182,143	101.3	273,932,396	105.2	1,504	103.9	48.1	58.9
1928	187,710	104.4	287,775,316	110.5	1,533	105.9	47.0	59.8
1929	187,846	104.5	290,732,500	111.7	1,548	106.9	48.9	60.2
1930	174,485	97.0	268,347,374	102.1	1,538	106.2	55.4	66.1
1931	154,569	86.0	229,499,505	88.2	1,485	102.6	58.5	65.4
1932	132,678	73.8	181,113,588	69.6	1,365	94.3	56.4	64.5
1933	121,923	67.8	158,326,445	60.8	1,299	89.7	53.9	62.5
1934	127,326	70.8	163,336,635	62.7	1,283	88.6	54.3	64.8
1935	127,526	70.9	172,956,218	66.4	1,356	93.6	51.2	60.1

WAGES AND HOURS IN INDUSTRY IN BRITISH COLUMBIA, 1936

IN 1936 the average industrial weekly wage for adult male employees in British Columbia was $26.36—an increase of 9.4 percent compared with the weekly wage reported for 1935, but 9.7 percent below that for 1929, according to the annual report of the department of labor of that Province for the year 1936. Average weekly wages of adult males for the week of greatest employment ordinarily means a full week's wage. In 1936 these wages ranged from $17.75 in cigar and tobacco manufacture to $32.72 in printing and publishing and $34.39 in jewelry manufacture.

The 1936 industrial returns also show that large percentages of adult males employed in the week of employment of the greatest number were receiving under $19 per week. In the lumber industries 21.22 percent of 23,907 adult males were paid less than this amount. In metal mining, however, only 2.76 percent of 7,719 adult males were receiving less than this wage.

The average weekly working hours for all employees in 1936 were 47.63 as compared with 47.17 in the preceding year and 48.25 in 1929.[1] Of 90,871 employees reported by employers, 87.12 percent worked 48 hours or less per week in 1936; 6.42 percent between 48 and 54 hours per week; and 6.46 percent, over 54 hours per week. In 5 industries—coast shipping, food-products manufacture, metal mining, oil refining, and smelting—the average weekly hours in 1929 were over 51, reaching almost 54 in metal mining. In 1936 in only two

[1] Figures for 1929 from Annual Report of the Department of Labor of British Columbia for the year ended Dec. 31, 1932, Victoria, 1933, p. 39.

industries were the average weekly hours 50 or more—food-products manufacture, in which 50.54 hours were reported, and logging railways, 50.70 hours.

The table following gives average weekly wages of adult males for the week of greatest employment, and average weekly hours of work, by industries, in British Columbia, for 1929, 1935, and 1936.

Average Weekly Wages and Hours of Work in British Columbia, 1929, 1935, and 1936

Industry	Average full week's wage			Average weekly hours		
	1936	1935	1929 [1]	1936	1935	1929 [1]
Breweries	$25.00	$25.79	$27.70	44.98	45.15	46.77
Builders' materials	22.28	22.07	28.04	44.44	44.55	46.96
Cigar and tobacco	17.75	16.59	26.58	43.45	44.38	44.40
Coal mining	28.75	28.49	30.18	48.03	47.99	48.03
Coast shipping	31.61	26.23	32.84	48.58	49.72	51.05
Contracting	24.13	22.72	30.57	44.57	43.81	45.16
Explosives and chemicals	23.76	25.34	24.61	43.83	48.36	46.04
Food products	23.16	22.00	26.56	50.54	48.85	51.01
Garment making	22.74	21.29	28.68	44.79	42.60	44.87
Housefurnishings	21.29	20.05	26.74	44.92	45.50	45.53
Jewelry manufacturing	34.39	31.54	36.61	44.43	43.54	44.24
Laundries, cleaning and dyeing	22.25	21.92	23.16	44.74	44.49	46.62
Leather and fur-goods manufacturing	20.48	20.06	29.03	45.61	46.18	46.70
Lumber industries	24.83	22.41	26.54			
Logging				48.66	48.46	47.31
Logging railways				50.70	52.46	48.61
Lumber dealers				45.07	47.30	47.63
Planing mills				48.45	49.16	49.14
Sawmills				48.50	48.35	49.12
Shingle mills				47.28	47.46	47.86
Metal mining	29.10	28.65	35.24	49.89	50.05	53.96
Metal trades	24.41	23.67	29.50	45.36	45.02	45.87
Oil refining	26.21	25.55	30.50	47.29	42.76	51.61
Paint manufacturing	21.44	21.53	25.58	43.87	43.81	45.00
Printing and publishing	32.72	32.31	40.81	44.54	44.10	45.44
Pulp and paper manufacturing	24.24	23.53	27.87	47.85	47.99	48.35
Shipbuilding	26.38	25.83	30.25	43.75	43.97	44.15
Smelting	24.54	25.82	33.09	47.90	44.27	52.72
Street railways, gas, water, power, etc	27.50	27.09	30.70	45.29	44.87	44.61
Wood manufacturing (not elsewhere specified)	20.32	18.69	25.49	46.05	46.09	47.03

[1] 1929 figures from annual report, Department of Labor, British Columbia, for the year ended Dec. 31, 1932, Victoria, 1933, p. 40.

WAGES IN CEYLON, 1936

AT THE beginning of 1936 in the up country of Ceylon the legal minimum wage rate for males for a 9-hour day (including not over 1 hour for the midday meal) was 0.49 rupee; for women, 0.39 rupee; and for children, 0.29 rupee.[1] Wage rates for the several sections of the island are given in the following tabulation from the Administration Report of the Ceylon Controller of Labor for 1936:

Minimum Wage Rates in Ceylon, 1936

[Average exchange rate of rupee in 1936=37.5 cents]

Locality	Men	Women	Children
	Rupee	*Rupee*	*Rupee*
Up country	0.49	0.39	0.29
Mid country	.43	.35	.25
Low country	.41	.33	.24

[1] Average exchange rate of rupee in 1936=37.5 cents.

The foregoing rates are based on "the issue price of rice at a rate not exceeding 4.80 rupees per bushel." At the time the report under review was being prepared these rates were still effective.

WAGES IN SHANGHAI, 1934 AND 1935

THE average hourly wage rate of males in Shanghai in September 1935 for all industries combined was 8.4 Chinese cents, the highest average rates, 14.3 and 14.0 Chinese cents, respectively, being reported for the printing and the shipbuilding industries. The lowest rate for males, 4.4 Chinese cents, was paid in flour making. The average rate for females in the same year in all industries was 4.2 Chinese cents—one-half of that for males. In most industries in which wages for both males and females were reported, however, the discrepancy was not so great. The smallest variation between the rates for the two sexes in September 1935 occurred in hosiery knitting, in which the differential was 0.2 Chinese cent in favor of female workers.

The change in rates from September 1934 to September 1935 for all industries for each sex was less than one-half of a Chinese cent per hour, the most substantial change for any industry being a decrease for male workers in match factories from 11.6 to 8.3 Chinese cents, while the rate for male workers in the printing industry increased from 11.8 to 14.3 Chinese cents, as shown in the following table compiled from figures presented in the 1937 Year-Book of Labor Statistics of the International Labor Office (p. 129).

Average Hourly Wage Rates in Shanghai, September 1934 and 1935

Average exchange rate of yuan dollars (100 cents) in 1934=34.1 cents, and in 1935=36.6 cents in U. S. currency]

Industry	September 1935		September 1934	
	Males	Females	Males	Females
	Chinese cents	*Chinese cents*	*Chinese cents*	*Chinese cents*
All industries	8.4	4.2	8.3	4.6
Machinery	9.0	----	9.1	----
Shipbuilding	14.0	----	13.7	----
Enameling	5.5	5.2	6.6	5.7
Paper making	6.6	3.3	6.4	2.8
Printing	14.3	6.5	11.8	6.3
Cotton spinning	4.5	3.9	4.6	4.0
Cotton weaving	5.4	4.7	5.5	5.4
Wool weaving	6.1	4.4	6.3	5.4
Silk reeling	----	2.9	----	2.9
Silk weaving	9.6	6.2	10.6	7.8
Underwear knitting	7.7	6.4	7.8	7.7
Hosiery knitting	5.5	5.7	7.1	7.2
Match making	8.3	3.2	11.6	3.6
Flour making	4.4	----	4.8	----
Oil pressing	5.2	----	5.9	----
Tobacco	8.1	5.6	7.8	7.0

INCREASE IN SEAMEN'S WAGES IN FINLAND

THE THREAT of a seamen's strike in Finland, sponsored by the Finnish Seamen's Union, in order to raise wages to the level of those prevailing in the Scandinavian countries, resulted in a wage agreement concluded between the seamen's union and the Finnish shipowners on September 1, 1937, on the basis of a wage increase proposed by the Government mediator.[1] The new wage rates are effective from September 1, 1937, to September 1, 1938.

The following figures show the extent of the increase of wages:

TABLE 1.—*Old and New Monthly Wage Rates and Percent of Increase*

[Average exchange rate of Finnish mark in July 1937=2.2 cents]

Occupation	Old rates	New rates	Percent of increase
	Markkaa	*Markkaa*	
Carpenters	1,225	1,430	16.7
Boatswains	1,150	1,350	17.4
Able seamen	950	1,150	21.1
Ordinary seamen	750	900	20.0
Apprentice seamen	475	560	17.9
Donkeymen	1,150	1,350	17.4
Oilers and motormen	1,020	1,200	17.6
Firemen [1]	1,000	1,150	15.0
Trimmers	760	900	18.4

[1] The rating of junior firemen, formerly paid a rate of 850 markkaa, is abolished under the agreement.

The new monthly wage rates of the personnel of the steward's department are as follows:

TABLE 2.—*New Monthly Wage Rates of Steward's Department Personnel*

[Average exchange rate of Finnish mark in July 1937=2.2 cents]

Occupation	Ships with crew of 18		Ships with crew of over 18	
	Males	Females	Males	Females
	Markkaa	*Markkaa*	*Markkaa*	*Markkaa*
Stewards and matrons	1,900	1,100	2,100–2,400	1,200
Cooks	1,250	900	1,350–1,550	1,000
Second cooks	----------	----------	850	----------
Mess boys	500	----------	550–600	----------
Cooks' assistants and mess girls	----------	550	----------	550
Waitresses, pantry girls, and stewardesses	----------	525	----------	525

The new rates are minimum rates. On passenger ships matrons, cooks, etc., receive higher rates. Wages in the steward's department had been previously entirely unregulated. In some cases cooks and stewards had their wages increased by as much as 100 percent.

[1] Data are from Press Report of the International Transport Workers' Federation. Amsterdam, Sept. 13, 1937 (pp. 116–117), and report of Archibald E. Gray, American consul at Helsinki, Finland, Sept. 7, 1937.

WAGES IN SHIPBUILDING TRADES IN THE NETHERLANDS, 1930 TO 1936

AVERAGE hourly wages of workers in the metal-shipbuilding trades in the Netherlands in 1930, 1932, 1935, and 1936, are shown in table 1.[1] Wages in 1936 as compared with those in 1930 show a considerable drop, ranging from 15 to 25 Dutch cents per hour less in the second half of 1936 than in a corresponding period in 1930.

TABLE 1.—*Average Hourly Wages in Shipbuilding in the Netherlands, 1930 to 1936*

[Average exchange rate of florin (100 Dutch cents) in 1936=64.5 cents, United States currency]

Location	Second half of 1930	Second half of 1932	Second half of 1935	First half of 1936	Second half of 1936	Decrease, second half of 1936 compared with second half of 1930
Metal shipbuilding:	*Dutch cents*	*Dutch cents*	*Dutch cents*	*Dutch cents*	*Dutch cents*	*Dutch cents*
Amsterdam	88	80	68	66	67	21
Rotterdam and Schiedam	82	75	64	60	60	22
Arnhem, Rheden	68	----	----	----	47	21
Dordrecht	73	63	60	58	58	15
Ridderkerk, Lekkerkerk	70	57	45	48	45	25

Table 2 shows the number of the workers covered by the wage figures for the second half of 1936. The workers receiving from 55 to 70 Dutch cents per hour comprise the vast majority of the shipbuilding workers under review.

TABLE 2.—*Average Hourly Wages in Shipbuilding in the Netherlands, Second Half of 1936*

[Average exchange rate of florin (100 Dutch cents) in 1936=64.5 cents, United States currency]

Location	Number of workers	Percent of workers receiving hourly wages (in Dutch cents) of—										
		35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and over
Metal shipbuilding:												
Amsterdam	281	----	----	----	3.0	15.0	23.0	23.0	20.0	15.0	1.0	----
Rotterdam and Schiedam	504	0.2	1.0	5.0	19.0	26.0	24.0	17.0	5.0	2.0	1.0	1.0
Arnhem, Rheden	6	----	----	67.0	33.0	----	----	----	----	----	----	----
Dordrecht	32	----	----	9.0	22.0	22.0	41.0	3.0	----	3.0	----	----
Ridderkerk, Lekkerkerk	59	----	63.0	14.0	15.0	8.0	----	----	----	----	----	----

[1] Maandschrift van het Centraal Bureau voor de Statistiek, Apr. 30, 1937, p. 632.

Employment Offices

OPERATIONS OF UNITED STATES EMPLOYMENT SERVICE, SEPTEMBER 1937

CONTINUED betterment in placement results was reported by offices of the United States Employment Service during September. Over a third of a million placements of all types were reported, nearly a quarter of a million being with private employers, while the number of active job seekers registered with the offices declined to a new low point.

Public employment offices reported the second highest total of private placements during September for any month in their entire history. The volume of 239,596 placements was 42.8 percent higher than the number reported in September 1936. The September total, which included 149,600 placements of men and 89,996 placements of women, was 5.1 percent higher than the private placements in the preceding month. A seasonal gain from August to September has been normal in Employment Service operations in recent years.

In addition to the private placements, the offices made 103,906 placements in governmental service, on public buildings and construction projects, or with contractors operating on such projects, and 2,527 assignments on relief work.

The gains in private placements were widespread. Increases were reported in 33 States. The greatest gains for any geographic regions were reported in the South Atlantic and East South Central States, closely followed by the Middle Atlantic region, in all of which private placements were over 20 percent higher in September than in August. Decreases were reported only for the West South Central section and in the West North Central. In the latter region a drop of 21.1 percent was reported from August.

A decline in the number of persons seeking work through the facilities of the Employment Service was notable in September. During the month 278,946 new applicants were registered by the offices, 1.6 percent less than the number registered during August and 21.6 percent less than the number registered in September 1936. The greater part of the new registrants were men, 190,202 applying to the offices for the first time during September, as compared to 88,744 women.

More striking than the decline in new applications was the drop in the active file to a total of 4,636,744 active registrants. This is 4.5

percent fewer than the number of active registrants at the end of August and represents a drop of 32.2 percent from the number of registrants seeking work through the offices in September a year ago. The active file includes the registrations of employed persons seeking better jobs and certified relief persons employed on W. P. A. projects, as well as the applications of the totally unemployed. At the end of September 3,571,189 registrations represented men and 1,065,555 represented women.

The following table summarizes the principal operating totals of the Employment Service for September as compared with the previous month and the previous year:

TABLE 1.—*Summary of Operations of United States Employment Service, September 1937*

Activity	Number	Percent of change from—		
		August 1937	September 1936	September 1935
New applications	278,946	−1.6	−21.6	−59.7
Total placements	346,029	−3.3	−20.4	−12.7
Private	239,596	+5.1	+42.8	+109.6
Public	103,906	−18.1	−53.2	−13.9
Relief	2,527	−19.2	−94.4	−98.4
Active file	4,636,744	−4.5	−32.2	−47.0

Reports of activities conducted by the United States Employment Service for veterans show that during September greater increases in private placements and larger declines in the active file were reported for veterans than for registrants as a whole. Activities for veterans are summarized below:

TABLE 2.—*Summary of Veterans' Activities, September 1937*

Activity	Number	Percent of change from—		
		August 1937	September 1936	September 1935
New applications	8,748	−7.5	−38.0	−73.9
Total placements	18,679	−5.4	−34.7	−46.6
Private	10,699	+8.0	+34.6	+65.1
Public	7,708	−19.2	−57.7	−54.3
Relief	272	−5.6	−89.0	−97.7
Active file	244,911	−5.9	−35.1	−53.9

TABLE 3.—*Operations of United States Employment Service, September 1937*

TOTAL

Division and State	Placements							New applications		Active file	
			Private			Public					
	Total[1]	Number	Percent of change from August	Regular (over 1 month)	Temporary (1 month or less)	Number	Percent of change from August	Number	Percent of change from August	Sept. 30, 1937	Percent of change from Aug. 31
United States	346,029	239,596	+5.1	103,507	136,089	103,906	−18.1	278,946	−1.6	4,636,744	−4.5
New England	12,374	8,038	+17.1	4,596	3,442	4,285	−15.4	16,697	+19.7	385,316	−2.4
Maine	1,318	136	−18.1	109	27	1,182	−22.7	1,333	+13.7	16,051	−.4
New Hampshire	1,352	926	+53.3	573	353	411	−24.0	1,026	+22.3	17,155	−6.1
Vermont	1,431	1,038	+46.0	385	653	393	−34.5	829	+7.4	5,698	−1.5
Massachusetts	3,535	2,281	+13.1	1,325	956	1,263	−7.3	6,935	+14.7	259,859	−3.6
Rhode Island	1,160	929	+34.4	558	371	205	−12.4	1,702	+25.4	36,772	+.5
Connecticut	3,568	2,728	+1.9	1,646	1,082	831	+3.9	4,872	+29.6	49,781	+3.2
Middle Atlantic	50,014	34,963	+21.2	18,011	16,952	13,573	−11.1	47,154	+3.5	1,180,955	−4.8
New York	28,247	21,876	+31.2	10,433	11,443	6,187	−12.6	22,904	+7.2	304,046	−2.4
New Jersey	5,583	4,773	+3.9	2,710	2,063	798	−16.8	7,150	+15.0	161,237	−5.3
Pennsylvania	16,184	8,314	+9.8	4,868	3,446	6,588	−8.9	17,100	−5.0	715,672	−5.6
East North Central	68,000	54,132	+1.8	26,011	28,121	13,458	−21.1	61,638	−7.2	873,097	−5.4
Ohio	20,542	15,545	−.6	6,759	8,786	4,925	−11.2	15,819	−4.4	261,214	−8.4
Indiana	6,841	5,831	+10.5	3,784	2,047	998	−5.1	9,151	−7.0	101,287	−7.5
Illinois	22,693	19,796	−3.0	9,293	10,503	2,867	−47.1	16,922	−15.0	278,997	−5.2
Michigan	9,171	6,807	+14.2	3,066	3,741	2,206	−4.7	8,555	−10.5	124,133	+1.0
Wisconsin	8,753	6,153	+4.5	3,109	3,044	2,462	−9.6	11,191	+6.1	107,466	−2.9
West North Central	40,277	22,471	−21.1	9,295	13,176	17,549	−13.7	26,518	−10.5	485,419	−6.6
Minnesota	9,354	6,050	−20.6	2,846	3,204	3,164	−9.5	5,156	−15.5	108,999	−5.2
Iowa	9,826	5,401	+2.2	2,250	3,151	4,356	+4.5	4,815	+.6	52,187	−2.5
Missouri	6,309	3,862	+13.5	1,918	1,944	2,447	−28.1	7,276	+14.9	161,485	−9.0
North Dakota	3,760	3,029	−62.4	673	2,356	729	−21.2	2,095	−59.9	24,322	−7.3
South Dakota	3,278	830	+13.7	317	513	2,419	+3.1	1,375	−1.4	36,129	−17.1
Nebraska	4,561	1,406	−14.7	677	729	3,139	−19.5	3,098	−13.0	40,016	−1.4
Kansas	3,189	1,893	+8.4	614	1,279	1,295	−38.2	2,703	+21.8	62,281	−2.3
South Atlantic	42,435	24,852	+23.1	11,598	13,254	17,502	−10.8	31,457	+14.9	493,054	−2.8
Delaware	2,131	1,809	+38.2	348	1,461	318	−25.2	1,070	−4.3	10,001	−1.6
Maryland	3,117	1,629	+1.4	930	699	1,488	−8.2	2,926	+9.4	42,264	−4.8
District of Columbia	2,422	2,193	+19.2	1,031	1,162	229	−23.4	2,526	+8.3	28,866	+10.1
Virginia	4,958	2,419	−8.9	998	1,421	2,531	−19.8	3,439	+10.1	48,553	−2.8
West Virginia	3,704	1,967	+35.2	1,112	855	1,733	−10.4	4,025	+67.2	72,170	−6.2
North Carolina	9,793	6,789	+18.4	4,776	2,013	3,003	−13.4	6,376	+6.0	77,449	−2.8
South Carolina	5,569	3,364	+100.0	789	2,575	2,182	−22.7	1,855	−24.9	49,582	−1.6
Georgia	9,000	4,682	+24.7	1,614	3,068	4,318	+.3	7,584	+39.2	101,531	−4.3
Florida	1,741	0	-------	0	0	1,700	+6.2	1,656	−6.8	62,638	−1.0
East South Central	19,086	9,122	+22.2	4,031	5,091	9,911	−32.4	19,493	+3.9	399,743	−2.9
Kentucky	4,614	2,154	+2.1	1,026	1,128	2,440	−7.8	4,428	−9.0	125,669	−.7
Tennessee	4,324	2,421	+17.1	1,658	763	1,903	−54.4	3,973	+5.2	126,680	−6.0
Alabama	5,428	4,416	+42.0	1,235	3,181	992	−11.2	5,932	+48.9	69,456	−4.3
Mississippi	4,720	131	−27.6	112	19	4,576	−31.9	5,160	−16.0	77,938	+.3
West South Central	50,082	41,542	−5.5	7,592	33,950	8,503	−22.4	32,909	−15.5	384,865	−5.0
Arkansas	3,337	2,561	−34.0	884	1,677	768	−31.7	1,647	−44.9	47,760	−2.8
Louisiana	2,847	2,022	+16.5	1,352	670	819	−20.1	4,354	−1.3	64,942	−5.2
Oklahoma	4,759	2,772	+44.9	692	2,080	1,986	−14.1	3,220	+5.4	96,871	−6.6
Texas	39,139	34,187	−6.2	4,664	29,523	4,930	−24.0	23,688	−16.8	175,292	−4.7
Mountain	24,100	14,177	+5.9	6,233	7,944	9,812	−11.3	12,743	+3.4	142,291	−5.6
Montana	3,129	1,066	+3.6	646	420	2,048	−12.3	1,055	+11.6	24,039	−3.0
Idaho	2,282	1,362	+20.2	540	822	920	−22.5	1,125	−1.4	12,610	−1.9
Wyoming	2,240	716	−21.9	359	357	1,452	+25.1	889	−6.1	3,354	−23.1
Colorado	6,477	3,909	−5.1	1,460	2,449	2,552	+12.2	3,839	+10.9	47,167	−2.6
New Mexico	4,013	3,271	+25.0	1,010	2,261	739	−39.3	1,757	+8.5	29,775	−7.1
Arizona	2,282	1,575	+28.0	863	712	702	−40.4	1,634	+28.4	15,151	+.7
Utah	2,498	1,705	−1.2	985	720	793	−19.1	1,422	−28.3	7,108	−27.9
Nevada	1,179	573	−5.9	370	203	606	−17.2	1,022	+7.4	3,087	−6.5
Pacific	39,661	30,299	+18.2	16,140	14,159	9,313	−27.2	30,337	−.9	292,004	−3.2
Washington	6,865	3,715	+2.0	1,749	1,966	3,102	−32.0	4,930	−9.4	54,450	−6.2
Oregon	4,023	2,637	−9.8	841	1,796	1,383	−44.2	3,045	.0	38,793	+.2
California	28,775	23,947	+25.6	13,550	10,397	4,828	−16.1	22,362	+1.0	198,761	−3.0

[1] Includes 2,527 security-wage placements on work-relief projects.

TABLE 3.—*Operations of United States Employment Service, September 1937*—Continued

MEN

Division and State	Placements							New applications		Active file	
		Private				Public					
	Total[1]	Number	Percent of change from August	Regular (over 1 month)	Temporary (1 month or less)	Number	Percent of change from August	Number	Percent of change from August	Sept. 30, 1937	Percent of change from Aug. 31
United States	254,865	149,600	+4.8	57,834	91,766	103,059	−18.1	190,202	−2.8	3,571,189	−4.7
New England	8,595	4,320	+19.1	2,452	1,868	4,239	−16.1	10,935	+16.2	283,377	−2.8
Maine	1,229	50	−32.4	34	16	1,179	−22.8	1,079	+9.1	13,866	−.6
New Hampshire	1,023	606	+75.7	356	250	403	−25.2	638	+21.1	13,105	−6.5
Vermont	1,160	768	+73.0	233	535	392	−34.6	606	+5.4	4,467	−1.3
Massachusetts	2,472	1,214	+7.2	745	469	1,257	−7.2	4,545	+5.6	189,588	−4.2
Rhode Island	604	387	+30.7	250	137	205	−12.4	1,008	+26.5	25,848	+.3
Connecticut	2,107	1,295	−3.0	834	461	803	+.6	2,059	+37.9	36,503	+3.2
Middle Atlantic	32,801	18,180	+20.4	9,572	8,608	13,341	−10.6	29,223	−3.3	921,838	−5.4
New York	17,829	11,577	+34.9	5,347	6,230	6,074	−10.9	13,919	+.6	238,428	−3.9
New Jersey	2,700	1,895	−7.8	1,363	532	793	−17.1	4,454	+12.7	128,414	−4.4
Pennsylvania	12,272	4,708	+5.5	2,862	1,846	6,474	−9.4	10,850	−12.7	554,996	−6.3
East North Central	44,056	30,315	+2.4	13,387	16,928	13,347	−21.3	40,328	−5.4	689,075	−5.4
Ohio	13,715	8,754	+5.1	3,411	5,343	4,889	−11.3	11,024	+11.2	203,316	−8.3
Indiana	3,883	2,881	+16.6	1,632	1,249	990	−4.0	5,790	−11.1	83,144	−7.1
Illinois	14,049	11,190	−6.0	4,927	6,263	2,836	−47.4	10,473	−17.7	219,721	−5.4
Michigan	6,557	4,209	+11.3	1,919	2,290	2,190	−5.0	5,895	−12.5	100,540	+.5
Wisconsin	5,852	3,281	+5.6	1,498	1,783	2,442	−10.0	7,146	+5.8	82,354	−2.9
West North Central	31,959	14,273	−30.6	4,697	9,576	17,457	−13.8	17,680	−17.4	387,735	−6.1
Minnesota	6,616	3,346	−30.7	1,462	1,884	3,138	−9.9	3,134	−21.7	85,436	−4.9
Iowa	7,927	3,516	+3.2	1,223	2,293	4,344	+4.7	3,052	−4.8	41,301	−2.8
Missouri	4,677	2,230	+15.5	900	1,330	2,447	−28.0	4,702	+10.9	131,163	−7.1
North Dakota	3,196	2,477	−67.3	393	2,084	717	−21.8	1,649	−65.7	18,700	−8.9
South Dakota	2,984	578	+15.6	177	401	2,394	+3.1	889	+10.8	29,394	−17.3
Nebraska	3,882	736	−25.7	241	495	3,130	−19.6	2,198	−18.7	32,197	−2.2
Kansas	2,677	1,390	+4.0	301	1,089	1,287	−38.5	2,056	+40.8	49,544	−1.6
South Atlantic	31,787	14,306	+27.7	5,707	8,599	17,424	−10.6	23,180	+14.3	357,323	−2.8
Delaware	1,094	775	+84.5	182	593	318	−24.6	638	+22.5	7,008	+.1
Maryland	2,549	1,064	+.7	606	458	1,485	−8.2	1,988	−1.7	33,295	−7.0
District of Columbia	1,067	844	+32.7	359	485	223	−13.6	1,343	+4.8	19,348	+10.0
Virginia	3,974	1,446	+13.0	503	943	2,522	−19.9	2,528	+7.2	34,220	−4.1
West Virginia	2,660	944	+54.0	541	403	1,714	−11.0	3,039	+77.4	59,153	−5.9
North Carolina	6,455	3,468	+9.2	2,152	1,316	2,987	−13.3	4,596	+9.2	52,086	−2.9
South Carolina	4,714	2,518	+138.0	439	2,079	2,178	−22.5	1,536	−28.4	35,092	−1.1
Georgia	7,545	3,247	+13.5	925	2,322	4,298	+.7	6,336	+36.1	71,282	−2.2
Florida	1,729	0	-------	0	0	1,699	+6.2	1,176	−14.2	45,839	−2.0
East South Central	15,659	5,753	+28.4	2,308	3,445	9,862	−32.6	15,531	+6.8	304,354	−2.8
Kentucky	3,628	1,193	−2.9	533	660	2,420	−8.1	3,078	−16.7	99,173	−.6
Tennessee	3,222	1,325	+28.6	853	472	1,897	−54.5	2,737	+2.5	98,779	−6.4
Alabama	4,114	3,128	+50.2	333	2,295	969	−12.2	4,883	+77.0	51,029	−2.9
Mississippi	4,695	107	−22.5	89	18	4,576	−31.9	4,833	−11.0	55,373	+.1
West South Central	38,179	29,708	−1.5	4,075	25,633	8,437	−22.4	22,824	−13.2	294,964	−5.3
Arkansas	2,643	1,872	−15.6	533	1,339	763	−32.1	1,117	−40.2	38,182	−3.4
Louisiana	1,954	1,130	+36.6	719	411	818	−20.1	3,122	+12.8	51,966	−4.9
Oklahoma	3,556	1,595	+74.3	251	1,344	1,960	−14.1	2,342	+6.8	78,252	−7.0
Texas	30,026	25,111	−4.2	2,572	22,539	4,896	−24.1	16,243	−16.6	126,564	−4.9
Mountain	19,853	10,011	+5.8	3,821	6,190	9,750	−11.3	8,843	+1.7	114,245	−5.5
Montana	2,904	858	−4.1	495	363	2,034	−12.4	785	+6.7	19,790	−3.6
Idaho	1,902	989	+25.0	285	704	913	−22.4	833	−8.9	10,829	−1.9
Wyoming	2,041	523	−27.6	252	271	1,452	+25.6	664	−12.9	2,443	−27.1
Colorado	5,359	2,815	+5.2	829	1,986	2,535	+12.2	2,558	+6.9	35,896	−3.2
New Mexico	3,233	2,503	+21.3	706	1,797	729	−39.7	1,179	+3.4	24,847	−7.3
Arizona	1,719	1,019	+28.8	594	425	696	−40.7	1,186	+25.5	12,453	+.9
Utah	1,628	841	−16.4	341	500	787	−19.0	817	−17.1	5,413	−22.3
Nevada	1,067	463	−10.4	319	144	604	−17.1	821	+.2	2,574	−7.6
Pacific	31,976	22,734	+22.3	11,815	10,919	9,202	−27.3	21,658	−2.3	218,278	−3.8
Washington	5,884	2,766	+3.2	1,173	1,593	3,080	−32.3	3,862	−9.6	44,743	−5.6
Oregon	3,413	2,038	−14.3	508	1,530	1,373	−44.5	2,282	−3.1	30,707	+.3
California	22,679	17,930	+32.5	10,134	7,796	4,749	−15.8	15,514	−.2	142,828	−4.0

[1] Includes 2,206 security-wage placements on work-relief projects.

TABLE 3.—*Operations of United States Employment Service, September 1937*—Continued

WOMEN

Division and State	Placements					New applications		Active file	
	Total [3]	Private				Number	Percent of change from August	Sept. 30, 1937	Percent of change from Aug. 31
		Number	Percent of change from August	Regular (over 1 month)	Temporary (1 month or less)				
United States	91,164	89,996	+5.6	45,673	44,323	88,744	+1.0	1,065,555	−3.6
New England	3,779	3,718	+14.7	2,144	1,574	5,762	+27.0	101,939	−1.2
Maine	89	86	−6.5	75	11	254	+38.8	2,185	+1.2
New Hampshire	329	320	+23.6	217	103	388	+24.4	4,050	−4.9
Vermont	271	270	+1.1	152	118	223	+13.2	1,231	−2.3
Massachusetts	1,073	1,067	+26.6	580	487	2,390	+37.1	70,271	−2.1
Rhode Island	556	542	+37.2	308	234	694	+23.9	10,924	+1.0
Connecticut	1,461	1,433	+6.7	812	621	1,813	+17.7	13,278	+3.0
Middle Atlantic	17,213	16,783	+22.1	8,439	8,344	17,931	+16.7	259,117	−2.3
New York	10,418	10,299	+27.2	5,086	5,213	8,985	+19.4	65,618	+3.5
New Jersey	2,883	2,878	+13.4	1,347	1,531	2,696	+19.3	32,823	−8.5
Pennsylvania	3,912	3,606	+16.1	2,006	1,600	6,250	+12.1	160,676	−3.1
East North Central	23,944	23,817	+1.1	12,624	11,193	21,310	−10.3	184,022	−5.1
Ohio	6,827	6,791	−7.1	3,348	3,443	4,795	−27.6	57,898	−8.6
Indiana	2,958	2,950	+5.2	2,152	798	3,361	+1.2	18,143	−9.1
Illinois	8,644	8,606	+1.3	4,366	4,240	6,449	−10.2	59,276	−4.1
Michigan	2,614	2,598	+19.3	1,147	1,451	2,660	−6.0	23,593	+3.2
Wisconsin	2,901	2,872	+3.4	1,611	1,261	4,045	+6.5	25,112	−3.1
West North Central	8,318	8,198	+3.5	4,598	3,600	8,838	+7.7	97,684	−8.8
Minnesota	2,738	2,704	−3.0	1,384	1,320	2,022	−3.9	23,563	−6.4
Iowa	1,899	1,885	+.3	1,027	858	1,763	+11.5	10,886	−1.4
Missouri	1,632	1,632	+10.8	1,018	614	2,574	+22.9	30,322	−16.2
North Dakota	564	552	+14.8	280	272	446	+8.0	5,622	−1.4
South Dakota	294	252	+9.6	140	112	486	+22.4	6,735	−15.9
Nebraska	679	670	+2.0	436	234	900	+5.1	7,819	+2.4
Kansas	512	503	+23.0	313	190	647	−14.8	12,737	−4.7
South Atlantic	10,648	10,546	+17.5	5,891	4,655	8,277	+16.7	135,731	−2.6
Delaware	1,037	1,034	+16.3	166	868	432	−27.6	2,993	−5.5
Maryland	568	565	+2.7	324	241	938	+43.9	8,969	+4.3
District of Columbia	1,355	1,349	+12.1	672	677	1,183	+12.7	9,518	+10.3
Virginia	984	973	−29.2	495	478	911	+19.1	14,333	+.4
West Virginia	1,044	1,023	+21.5	571	452	986	+42.1	13,017	−7.6
North Carolina	3,338	3,321	+29.8	2,624	697	1,780	−1.6	25,363	−2.4
South Carolina	855	846	+35.6	350	496	319	−1.8	14,490	−2.9
Georgia	1,455	1,435	+60.5	689	746	1,248	+56.8	30,249	−8.7
Florida	12	0	----------	0	0	480	+18.2	16,799	+2.0
East South Central	3,427	3,369	+12.8	1,723	1,646	3,962	−6.1	95,389	−3.2
Kentucky	986	961	+9.1	493	468	1,350	+14.9	26,496	−1.1
Tennessee	1,102	1,096	+5.7	805	291	1,236	+11.8	27,901	−4.8
Alabama	1,314	1,288	+25.4	402	886	1,049	−14.5	18,427	−8.1
Mississippi	25	24	−44.2	23	1	327	−54.1	22,565	+.8
West South Central	11,903	11,834	−14.3	3,517	8,317	10,085	−20.3	89,901	−4.2
Arkansas	694	689	−58.6	351	338	530	−52.7	9,578	−.2
Louisiana	893	892	−1.9	633	259	1,232	−25.1	12,976	−6.5
Oklahoma	1,203	1,177	+17.9	441	736	878	+1.7	18,619	−5.0
Texas	9,113	9,076	−11.4	2,092	6,984	7,445	−17.5	48,728	−4.0
Mountain	4,247	4,166	+6.3	2,412	1,754	3,900	+7.6	28,046	−5.9
Montana	225	208	+55.2	151	57	270	+29.2	4,249	−.6
Idaho	380	373	+9.1	255	118	292	+28.6	1,781	−1.5
Wyoming	199	193	−1.0	107	86	225	+21.6	911	−9.7
Colorado	1,118	1,094	−24.2	631	463	1,281	+19.9	11,271	−.6
New Mexico	780	768	+38.9	304	464	578	+20.7	4,928	−6.3
Arizona	563	556	+26.7	269	287	448	+36.6	2,698	−.3
Utah	870	864	+20.2	644	220	605	−39.3	1,695	−41.3
Nevada	112	110	+19.6	51	59	201	+51.1	513	−.4
Pacific	7,685	7,565	+7.4	4,325	3,240	8,679	+2.8	73,726	−1.4
Washington	979	949	−1.2	576	373	1,068	−8.8	9,707	−9.0
Oregon	610	599	+9.7	333	266	763	+10.7	8,086	+.0
California	6,096	6,017	+8.7	3,416	2,601	6,848	+4.0	55,933	−.2

[3] Includes 847 public placements and 321 security-wage placements on work-relief projects.

TABLE 4.—*Operations of United States Employment Service, September 1937*

VETERANS

Division and State	Placements							New applications		Active file	
		Private				Public					
	Total[1]	Number	Percent of change from August	Regular (over 1 month)	Temporary (1 month or less)	Number	Percent of change from August	Number	Percent of change from August	Sept. 30, 1937	Percent of change from Aug. 31
United States	18,679	10,699	+8.0	3,804	6,895	7,708	−19.2	8,748	−7.5	244,911	−5.9
New England	646	316	+10.1	157	159	319	−21.4	755	+4.9	24,545	−1.9
Maine	96	2	−66.7	1	1	94	0	65	+62.5	1,156	+3.5
New Hampshire	89	52	+85.7	30	22	37	−19.6	28	−3.4	1,066	−3.4
Vermont	41	27	0	9	18	14	−48.1	18	0	245	+4.3
Massachusetts	188	92	+5.7	49	43	96	−23.2	454	−4.0	17,540	−2.6
Rhode Island	44	34	+47.8	18	16	8	−65.2	46	+43.8	1,682	−3.1
Connecticut	188	109	−6.0	50	59	70	−23.1	144	+12.5	2,856	+.7
Middle Atlantic	2,185	1,202	+14.9	502	700	868	−17.3	1,113	−9.1	57,255	−10.3
New York	1,120	728	+26.4	231	497	378	−19.9	383	−3.3	15,874	−5.3
New Jersey	177	126	−10.6	71	55	51	−21.5	214	+9.7	9,965	−1.7
Pennsylvania	888	348	+5.8	200	148	439	−14.4	516	−18.6	31,416	−15.0
East North Central	3,654	2,388	+1.8	818	1,570	1,185	−19.0	1,884	−12.9	49,222	−5.5
Ohio	1,218	722	+4.6	204	518	443	−12.8	492	+6.7	14,176	−8.5
Indiana	285	204	+23.6	103	101	81	+15.7	276	−17.1	6,484	−4.9
Illinois	1,203	913	−2.5	259	654	290	−33.6	488	−23.5	16,073	−4.9
Michigan	445	294	+1.0	126	168	140	−.7	282	−26.2	6,855	+.3
Wisconsin	503	255	−3.0	126	129	231	−24.8	346	−.6	5,634	−6.9
West North Central	2,740	1,301	−11.5	364	937	1,397	−13.7	967	−5.4	29,707	−5.0
Minnesota	531	273	+18.5	125	148	248	−14.5	181	+.6	7,490	−3.8
Iowa	897	473	+6.1	112	361	393	+10.1	189	+30.3	3,324	−.8
Missouri	368	187	+8.1	63	124	181	−34.4	315	+7.1	9,747	−6.8
North Dakota	142	89	−61.1	16	73	53	−37.6	45	−63.7	1,086	−6.7
South Dakota	252	59	+73.5	14	45	193	−1.0	31	−40.4	1,964	−14.5
Nebraska	274	54	−30.8	12	42	219	−13.1	119	−13.8	2,368	−2.3
Kansas	276	166	−5.1	22	144	110	−32.9	87	−2.2	3,728	−1.4
South Atlantic	1,941	951	+18.7	330	621	985	−16.2	789	−2.0	22,682	−4.3
Delaware	67	38	+137.5	16	22	29	+38.1	15	+36.4	404	−5.4
Maryland	200	103	+30.4	64	39	97	−21.1	106	−1.9	2,713	−8.8
District of Columbia	161	108	+13.7	29	79	53	−27.4	106	−1.9	2,224	+8.4
Virginia	264	123	+13.9	45	78	140	−30.3	127	+1.6	1,734	−2.1
West Virginia	252	88	+22.2	45	43	164	+9.3	88	+27.5	3,418	−8.9
North Carolina	315	176	−2.8	87	89	139	−31.2	113	−13.7	2,675	−2.9
South Carolina	210	127	+115.3	17	110	83	−33.1	50	−29.6	1,849	−1.3
Georgia	370	188	+9.3	27	161	182	−6.2	136	+2.3	3,396	−8.7
Florida	102	0	-------	0	0	98	+12.6	48	−2.0	4,269	−2.5
East South Central	948	402	+20.4	137	265	539	−26.5	453	−14.0	15,531	−2.8
Kentucky	281	105	+12.9	41	64	174	−24.7	144	−8.3	5,251	−1.2
Tennessee	216	78	−6.0	32	46	138	−51.2	130	−6.5	5,250	−1.1
Alabama	299	209	+36.6	56	153	88	+25.7	111	−2.6	2,931	−8.6
Mississippi	152	10	+100.0	8	2	139	−6.7	68	−41.9	2,099	−2.6
West South Central	2,033	1,362	+21.6	268	1,094	667	−25.3	634	−18.9	16,662	−7.4
Arkansas	129	93	+10.7	31	62	34	−50.0	51	−17.7	2,115	−3.0
Louisiana	147	81	+26.6	39	42	66	−25.0	126	−20.8	3,519	−4.4
Oklahoma	310	156	+88.0	21	135	154	−12.5	95	−4.0	4,263	−7.6
Texas	1,447	1,032	+16.1	177	855	413	−26.4	362	−21.6	6,765	−10.1
Mountain	1,359	525	−5.4	223	302	829	−10.7	480	−.4	7,806	−4.4
Montana	238	79	+19.7	49	30	159	−22.1	39	+2.6	1,062	−2.0
Idaho	163	65	+12.1	16	49	98	−3.9	65	+1.6	738	−2.5
Wyoming	130	32	+23.1	13	19	94	−7.8	35	−10.3	209	−12.2
Colorado	365	142	−1.4	50	92	223	+31.2	133	−8.3	2,661	−3.8
New Mexico	120	55	−17.9	26	29	65	−16.7	31	+19.2	1,626	−8.0
Arizona	121	67	−8.2	33	34	53	−53.9	83	−3.5	889	+6.2
Utah	128	47	−37.3	16	31	81	−4.7	37	+23.3	448	−16.7
Nevada	94	38	−17.4	20	18	56	−22.2	57	+5.6	173	−4.4
Pacific	3,173	2,252	+15.6	1,005	1,247	919	−28.0	1,673	−3.5	21,501	−2.6
Washington	454	241	+.8	108	133	211	−25.4	162	−12.0	3,838	−4.1
Oregon	335	193	−24.6	39	154	142	−49.3	179	+6.5	3,332	+1.7
California	2,384	1,818	+25.1	858	960	566	−20.6	1,332	−3.5	14,331	−3.1

[1] Includes 272 security-wage placements on work-relief projects.

Trend of Employment and Pay Rolls

SUMMARY OF REPORTS FOR SEPTEMBER 1937

MORE THAN 190,000 additional workers found employment between August and September in the manufacturing and nonmanufacturing industries surveyed by the Bureau of Labor Statistics, primarily because of seasonal increases in wholesale and retail trade. Aggregate weekly pay rolls, however, were approximately $6,100,000 lower than in the preceding month, due chiefly to the decrease in factory wage disbursements, which had been adversely affected by shutdowns for Labor Day and other holidays.

Comparisons of employment and pay rolls in September 1937 with September 1936 showed a gain of more than 930,000 workers in these industries over the year interval, and an increase of approximately $55,300,000 in weekly pay rolls.

Class I railroads again reported fewer employees on their pay rolls. According to a preliminary tabulation by the Interstate Commerce Commission they had 1,120,883 employees in September, exclusive of executives, officials, and staff assistants, a decrease of 29,506 since August.

Employment in the judicial and legislative services of the Federal Government was slightly greater in September than in August. There were small decreases in employment, on the other hand, in the executive and military services. Employment on construction projects financed by regular Federal appropriations registered a small increase, while decreases occurred on projects financed by the Public Works Administration, the Reconstruction Finance Corporation, Federal projects under The Works Program, and projects operated by the Works Progress Administration. There was a decrease in the employment level of the Civilian Conservation Corps. This decrease was due to the end of an enlistment period.

Industrial and Business Employment

Although there was a decline from August to September of about 18,000 workers in manufacturing and 8,000 in 6 of the 16 nonmanufacturing industries surveyed, the gains in the remaining nonmanufacturing industries covered resulted in a net increase of more than 190,000 workers for manufacturing and nonmanufacturing combined.

The employment loss in manufacturing industries represented a decrease of 0.2 percent over the month interval, while the drop of

approximately $7,500,000 in weekly factory wages represented a decline of 3.6 percent. The decrease was sharper in pay rolls than in employment, largely because of shut-downs for Labor Day. During the 18-year period, 1919 to 1936 inclusive, for which data are available, factory employment has shown gains in September in 16 years and factory pay rolls have shown increases in 11 years.

Despite the declines in September of this year, the September factory-employment index (102.1) has been exceeded since November 1929 only in April, May, and August of this year, while the corresponding pay-roll index (100.1) was higher than for any month from December 1929 through February 1937.

Gains in factory employment from August to September were shown in 51 of the 89 manufacturing industries surveyed, and increased pay rolls were reported in 40 industries. Increased activity reflecting seasonal expansion resulted in pronounced employment gains in cottonseed oil, cake, and meal (122.4 percent), beet sugar (28.5 percent), confectionery (16.5 percent), fertilizer (15.6 percent), canning and preserving (12.1 percent), and millinery (7.2 percent). In the last four industries gains from August to September have generally been somewhat greater than they were this year. Other industries in which substantial seasonal gains in employment were shown were lighting equipment (7.2 percent), jewelry (5.3 percent), women's clothing (4.1 percent), silverware and plated ware (4.2 percent), hardware (3.1 percent), clocks, watches, and time-recording devices (2.7 percent) and radios and phonographs (2.4 percent). The gains in jewelry and women's clothing were less than seasonal. Employment in the agricultural-implement industry increased 4.4 percent, continuing the expansion which, with the exception of occasional seasonal recessions, has been shown in this industry since the latter part of 1932. The September 1937 employment level for this industry (147.2) stands above the level of all months from 1923 to date, with the exception of the first 7 months of 1929. In shipbuilding, there was a gain of 3.7 percent in employment. Among the industries of major importance in which less pronounced gains were shown were newspapers and periodicals, book and job printing, machine tools, engines-turbines-tractors, glass, baking, knit goods, and electrical machinery, apparatus, and supplies. The increase (2.0 percent) in machine tools is noteworthy, not only because the industry may be considered a barometer for orders placed for power-driven metal-cutting machinery, but also because, with two exceptions, consecutive gains have been shown each month since October 1934. The employment index for this industry has climbed from a low of 33.4 in April 1933 to the September level of 157.6, this level exceeding those of all months from 1923 to date, with the exception of 11 months of 1929.

Seasonal slackening of operations accounted in large measure for the decreases in employment in woolen and worsted goods (10.1 percent), ice cream (8.5 percent), boots and shoes (4.6 percent), beverages (3.2 percent), and butter (2.8 percent). Temporary shut-downs for change-over in models resulted in a decrease of 5.2 percent in the automobile industry. Other industries showing large declines were sugar refining (12.7 percent), tin cans and other tinware (3.3 percent), fur-felt hats (3.6 percent), electric- and steam-car building (5.7 percent), and cast-iron pipe (3.9 percent). The decreases in the 2 last-named industries resulted primarily from labor disputes. Other industries which employ large numbers of workers and in which employment decreased over the month interval were blast furnaces, steel works, and rolling mills; foundries and machine shops; steam railroad repair shops; sawmills; furniture; cotton goods; silk and rayon goods; and men's clothing.

Among the 10 nonmanufacturing industries in which employment gains were shown over the month interval, the expansion in a number of these industries was of a seasonal nature. Approximately 173,000 additional workers found employment in the retail-trade establishments of the country between August and September, the gain of 5.1 percent reflecting a seasonal expansion to handle increased volume of fall purchasing. The September 1937 employment index for retail trade (90.6) stands above the September level of any year since 1930. In addition to a gain of 10.5 percent in employment in the retail general merchandising group (department, variety, and general merchandising stores and mail-order houses), retail apparel stores reported a seasonal gain of 20.5 percent, and substantial increases were reported by retail furniture, jewelry, and wood-coal-ice firms. Wholesale-trade establishments also expanded their working forces in September, the seasonal increase of 1.4 percent in employment indicating the reemployment of approximately 19,000 workers. Employment in this industry in September reached the highest level registered since October 1930. Among the more important lines of wholesale trade in which gains were reported over the month interval were dry goods and apparel, chemicals, drugs, and allied products, furniture and housefurnishings, groceries, machinery equipment and supplies, metals and minerals, petroleum and petroleum products, and paper and paper products.

With the approach of colder weather, anthracite and bituminous-coal mines took on additional workers in September, anthracite mines reporting a gain of 17.1 percent, or approximately 10,000 workers between August and September, and bituminous-coal mines, a gain of 2.1 percent, or 7,800 workers. Employment was also greater in metal mines, the gain of 0.8 percent continuing the rise which has been evidenced each month since July 1935 with but two exceptions. Employment in this industry in September reached a level which

was nearly 3 times as great as the low point recorded in August 1932. Dyeing and cleaning plants reported a seasonal gain of 2.1 percent, or 1,000 workers, and year-round hotels also reported a seasonal rise, 1.5 percent, or 3,800 employees. Among the nonmanufacturing industries in which declines in employment were reported, the largest decreases were 1.2 percent in crude-petroleum producing and 1.9 percent in brokerage. Employment in the private building-construction industry declined 0.7 percent, while laundries and quarries and nonmetallic mines reported seasonal losses of 0.5 percent and 0.4 percent, respectively. Insurance companies reported a slight decrease (0.2 percent) in number of workers over the month interval.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, September 1937 (Preliminary Figures)*

Industry	Employment			Pay roll			Average weekly earnings		
	Index September 1937	Percentage change from—		Index September 1937	Percentage change from—		Average in September 1937	Percentage change from—	
		August 1937	September 1936		August 1937	September 1936		August 1937	September 1936
	(*1923–25 =100*)			(*1923–25 =100*)					
All manufacturing industries combined [1]	102.1	−0.2	+6.9	100.1	−3.6	+19.7	$24.92	−3.4	+12.0
Class I steam railroads [2]	63.4	−2.6	+2.8	(3)	(3)	(3)	(3)	(3)	(3)
	(*1929 =100*)			(*1929 =100*)					
Coal mining:									
Anthracite	48.2	+17.1	+1.2	31.5	+15.5	−9.8	18.99	−1.4	−10.9
Bituminous	80.5	+2.1	+3.0	77.7	+5.3	+9.4	24.37	+3.1	+6.2
Metalliferous mining	84.1	+.8	+33.2	82.2	−.9	+64.5	31.22	−1.7	+23.5
Quarrying and nonmetallic mining	54.7	−.4	−.4	50.1	−5.8	+12.0	22.86	−5.4	+12.4
Crude-petroleum producing	78.3	−1.2	+5.1	71.2	+.6	+17.9	33.41	+1.8	+12.1
Public utilities:									
Telephone and telegraph	80.1	+.3	+8.7	93.1	+1.0	+18.1	31.81	+.7	+8.6
Electric light and power and manufactured gas	98.5	+.2	+5.3	103.8	+1.2	+13.5	34.04	+1.0	+7.8
Electric-railroad and motor-bus operation and maintenance	73.7	+.4	+1.2	71.6	−2.2	+7.7	31.70	−2.5	+6.5
Trade:									
Wholesale	93.0	+1.4	+5.7	78.3	−.9	+11.1	30.60	−2.3	+5.0
Retail	90.6	+5.1	+4.6	74.5	+3.0	+11.9	22.36	−2.0	+6.9
General merchandising	103.6	+10.5	+5.2	92.6	+8.0	+11.8	19.37	−2.2	+6.3
Other than general merchandising	87.2	+3.6	+4.4	70.7	+1.7	+11.7	24.71	−1.8	+7.0
Hotels (year-round) [4]	88.1	+1.5	+4.6	76.1	+2.3	+12.7	15.00	+.8	+7.8
Laundries	93.7	−.5	+4.6	84.4	−1.9	+10.2	16.84	−1.3	+5.4
Dyeing and cleaning	86.7	+2.1	−(5)	72.8	+5.5	+10.2	20.61	+3.4	+10.2
Brokerage	(3)	−1.9	−1.4	(3)	−2.5	+2.4	38.77	−.6	+3.8
Insurance	(3)	−.2	+1.5	(3)	−2.4	+4.3	38.59	−2.2	+2.8
Building construction	(3)	−.7	+6.3	(3)	−2.2	+23.2	31.76	−1.5	+16.0

[1] Revised indexes; adjusted to 1933 Census of Manufactures.
[2] Preliminary; source—Interstate Commerce Commission.
[3] Not available.
[4] Cash payments only; the additional value of board, room, and tips cannot be computed.
[5] Less than 1/10 of 1 percent.

A reduction in the number of workers on pay rolls was again reported by class I railroads. According to a preliminary tabulation by the Interstate Commerce Commission, they employed 1,120,883 workers,

exclusive of executives, officials, and staff assistants, in September as against 1,150,389 in August, a decrease of 2.6 percent. Pay-roll figures were not available for September at the time this report was prepared. For August, the wage payments totaled $169,379,107, while for July they amounted to $164,047,159, a gain of 3.3 percent over the month interval.

Hours and earnings.—Factory wage earners worked 37.4 hours per week in September, according to reports from cooperating establishments covering full- and part-time workers combined. This represented a decline of 3.4 percent since August. The average hourly earnings of these workers stood at the same level as in August (65.8 cents) and average weekly earnings ($24.92) showed a decline of 3.4 percent over the month interval. Compared with September of last year, average hours worked per week were 3.6 percent lower in the current period, but average hourly earnings were 15.9 percent higher, and average weekly earnings were 12.0 percent higher.

Of the 14 nonmanufacturing industries for which man-hour data are available, 5 showed gains over the month interval in average hours worked per week and 6 showed increases in average hourly earnings. Average weekly earnings were higher for 6 of the 16 nonmanufacturing industries covered.

Table 1 presents a summary of employment and pay-roll indexes and average weekly earnings in September 1937 for all manufacturing industries combined, for selected nonmanufacturing industries, and for class I railroads, with percentage changes over the month and year intervals except in the few industries for which data are not available.

Public Employment

Employment on construction projects financed from Public Works Administration funds was 167,000 in September, a decrease of 21,000 or 11.1 percent compared with August. Decreases occurred in the number of workers employed on Federal and non-Federal projects financed from funds provided by the National Industrial Recovery Act and on projects financed from funds provided by the Emergency Relief Appropriation Acts of 1935 and 1936. Pay-roll disbursements for the month amounted to $14,309,000.

The number of workers employed on construction projects financed from regular Federal appropriations totaled 207,000 in September. This was an increase of more than 2,000 compared with August. Increases in employment occurred on all types of projects with the exception of forestry, public roads, streets and roads, and miscellaneous projects. For these four types of projects the level of employment was somewhat lower than in the preceding month. Pay-roll disbursements totaling $21,668,000 were $2,096,000 greater than in August.

There was a decrease in the number of workers employed on projects financed by the Reconstruction Finance Corporation. During the month over 4,000 employees were working on this program. Small increases on building construction and miscellaneous projects were offset by a marked decrease in employment on water and sewerage projects. Pay rolls on all types of projects totaled $541,000 for the month, $120,000 less than in the preceding month.

The number of wage earners on projects financed by The Works Program during September was 1,887,000, a decrease of 54,000, or 2.8 percent, compared with August. Of this total, 193,000 were working on Federal projects, 1,536,000 on projects operated by the Works Progress Administration, and 158,000 on work projects of the National Youth Administration and Student Aid. Pay-roll disbursements for all projects totaled $95,084,000.

In the regular agencies of the Federal Government small increases were reported in the judicial and legislative services. Decreases, on the other hand, occurred in the executive and military services. Of the 836,000 employees in the executive service in September, 112,000 were working in the District of Columbia and 724,000 outside the District. Approximately 91.4 percent of the total number of employees in the executive service were paid from regular appropriations and 8.6 percent from emergency funds. The most pronounced increases in the number of workers in the executive departments of the Federal Government occurred in the War Department and the Tennessee Valley Authority. Among the departments reporting decreases were the Department of the Interior, the Department of Agriculture, the Labor Department, and the Works Progress Administration.

Employment in the Civilian Conservation Corps reached the lowest level of the year, 289,000, in September. This was a decrease of more than 38,000 compared with August and was due to the end of an enlistment period. Decreases were registered for all groups of workers. Pay rolls for all workers amounted to $14,943,000, a decrease of $1,437,000.

In September 194,000 employees were working on the construction and maintenance of roads financed wholly from State funds, a gain of 5,000 compared with the preceding month. There was an increase of 7,000 in the number employed on maintenance work and a decrease of 2,000 on new construction. Of the total number employed 13.8 percent were engaged on new road construction and 86.2 percent on maintenance work. Pay rolls for the month totaled in excess of $12,843,000.

A summary of Federal employment and pay-roll statistics for August and September is given in table 2.

TABLE 2.—*Summary of Federal Employment and Pay Rolls, September 1937* [1]
(Preliminary Figures)

Class	Employment		Percentage change	Pay roll		Percentage change
	September	August		September	August	
Federal services:						
Executive [2]	836,173	[3] 843,082	−0.8	$125,897,930	[3] $126,541,673	−0.5
Judicial	1,908	1,904	+.2	504,220	479,696	+5.1
Legislative	5,273	5,233	+.8	1,215,658	1,209,429	+.5
Military	323,292	325,091	−.6	25,284,004	25,424,025	−.6
Construction projects:						
Financed by P. W. A. [4]	166,958	187,822	−11.1	14,309,249	15,426,466	−7.2
Financed by R. F. C. [3] [5]	4,056	4,789	−15.3	541,264	660,987	−18.1
Financed by regular Federal appropriations	206,663	204,174	+1.2	21,667,700	19,571,849	+10.7
Federal projects under The Works Program	193,114	207,331	−6.9	11,500,978	12,004,981	−4.2
Projects operated by W. P. A.	1,536,029	1,601,054	−4.1	81,250,907	82,861,644	−1.9
National Youth Administration:						
Work projects	127,219	132,787	−4.2	2,192,605	2,342,172	−6.4
Student Aid	30,879	[6] 17	(6)	139,188	[6] 81	(6)
Relief work: Civilian Conservation Corps	289,167	327,361	−11.7	14,942,683	[3] 16,380,024	−8.8

[1] Includes data on projects financed wholly or partially from Federal funds.

[2] Includes 108,171 employees and pay-roll disbursements of $13,625,065 for September; 109,204 employees and pay-roll disbursements of $13,770,563 for August, covering force-account and supervisory and technical employees shown under other classifications.

[3] Revised.

[4] Data covering P. W. A. projects financed from E. R. A. A., 1935 and 1936 funds are included. These data are not shown under The Works Program. Includes 114,803 wage earners and $9,309,180 pay roll for September; 131,547 wage earners and $10,183,970 pay roll for August, covering P. W. A. projects financed from E. R. A. A. 1935 and 1936 funds.

[5] Includes 133 employees and pay-roll disbursements of $13,553 for September and 133 employees and pay-roll disbursements of $12,875 for August on projects financed by the RFC Mortgage Co.

[6] August employment and pay-roll figures on student-aid projects were low due to the summer vacation period.

DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, AUGUST 1937

THIS ARTICLE presents the detailed figures on volume of employment, as compiled by the Bureau of Labor Statistics, for the month of August 1937. The tabular data are the same as those published in the Employment and Pay Rolls pamphlet for August, except for certain minor revisions or corrections.

Monthly reports on employment and pay rolls in industrial and business industries are now available for the following groups: 89 manufacturing industries; 16 nonmanufacturing industries, including building construction; and class I steam railroads. The reports for the first two of these groups—manufacturing and nonmanufacturing—are based on sample surveys made by the Bureau of Labor Statistics, and in virtually all industries the samples are large enough to be entirely representative. The figures on class I steam railroads are compiled by the Interstate Commerce Commission and are presented in the foregoing summary.

Employment, Pay Rolls, Hours, and Earnings in August 1937

The indexes of employment and pay rolls, average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in August 1937 are shown in table 1. Percentage changes from July 1937 and August 1936 are also given.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, August 1937*

MANUFACTURING

[Indexes are based on 3-year average 1923–25=100 and are adjusted to 1933 Census of Manufactures]

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index, August 1937	Percentage change from—		Index, August 1937	Percentage change from—		August 1937	Percentage change from—		August 1937	Percentage change from—		August 1937	Percentage change from—	
		July 1937	August 1936		July 1937	August 1936		July 1937	August 1936		July 1937	August 1936		July 1937	August 1936
													Cents		
All manufacturing industries	102.3	+0.9	+9.4	103.8	+3.4	+24.3	$25.89	+2.5	+13.7	38.7	+2.1	−1.9	65.8	+0.1	+15.4
Durable goods	98.1	−.8	+15.8	103.9	+3.2	+34.9	29.33	+4.0	+16.5	40.1	+3.8	−1.0	72.3	+.2	+17.5
Nondurable goods	106.8	+2.6	+3.9	103.6	+3.6	+12.9	22.07	+.9	+8.6	37.2	+.2	−3.1	59.0	+.4	+11.7
Durable goods															
Iron and steel and their products, not including machinery	108.7	+1.0	+14.1	120.4	+6.1	+38.7	31.52	+5.0	+21.6	39.9	+4.5	−3.1	77.6	+.5	+24.2
Blast furnaces, steel works, and rolling mills	121.4	+1.2	+14.8	142.3	+7.5	+45.1	34.74	+6.2	+26.4	40.4	+6.0	−2.8	86.0	+.3	+28.9
Bolts, nuts, washers, and rivets	86.7	−1.2	+14.0	100.7	+7.5	+29.4	26.48	+8.9	+13.5	39.6	+8.5	−2.0	67.3	+.9	+16.5
Cast-iron pipe	67.6	−2.3	+1.7	53.5	−.3	+11.9	21.28	+2.1	+10.0	37.2	+1.9	−5.8	56.9	+.1	+15.8
Cutlery (not including silver and plated cutlery) and edge tools	89.1	+6.1	+16.7	85.1	+9.1	+24.8	24.09	+2.8	+7.0	40.9	+3.4	−2.7	60.1	−.2	+9.4
Forgings, iron and steel	71.8	−.6	+22.8	67.1	+5.5	+39.7	28.61	+6.1	+13.8	39.8	+3.6	+2.2	72.2	+2.1	+11.5
Hardware	89.8	−3.8	+30.0	103.8	−3.8	+60.0	26.02	−[2]	+23.1	38.6	+1.8	−1.0	67.5	−1.8	+24.4
Plumbers' supplies	93.6	+1.1	+8.7	76.6	+6.5	+23.5	25.84	+5.3	+13.7	39.7	+3.2	−1.2	65.1	+2.1	+15.2
Steam and hot-water heating apparatus and steam fittings	76.4	−.7	+10.9	71.7	+1.1	+20.3	27.11	+1.8	+8.4	39.1	+.2	−9.0	69.0	+1.5	+19.2
Stoves	112.6	+7.7	+4.1	96.9	+17.9	+7.7	25.28	+9.5	+3.4	39.3	+6.4	−3.2	64.7	+3.1	+7.2
Structural and ornamental metalwork	81.4	+.9	+8.8	84.7	+2.9	+29.3	29.22	+2.2	+19.3	41.4	+2.4	+[2]	70.6	−.2	+19.3
Tin cans and other tinware	117.9	+2.7	+8.1	128.8	+5.6	+18.5	24.30	+2.9	+9.6	41.1	+3.5	−1.1	59.2	−.7	+11.1
Tools (not including edge tools, machine tools, files, and saws)	100.4	−1.6	+21.6	106.7	−.8	+30.9	24.81	+.8	+7.6	40.2	+.2	−5.0	61.6	+.6	+13.3
Wirework	171.3	−2.6	+19.6	160.7	−6.4	+38.0	23.46	−3.9	+15.0	34.4	−5.3	−8.7	68.3	+1.6	+26.0
Machinery, not including transportation equipment	130.2	+.2	+24.7	137.2	+2.7	+46.1	28.99	+2.5	+17.2	40.8	+1.7	+.3	71.0	+.7	+16.9
Agricultural implements	141.0	+1.7	+47.4	184.2	+6.8	+101.3	29.06	+5.9	+35.6	40.1	+4.5	+9.6	73.1	+1.3	+22.5
Cash registers, adding machines, and calculating machines	135.0	−1.6	+34.6	140.0	−4.6	+55.8	32.06	−3.1	+15.7	40.3	−2.7	−.6	80.2	−.5	+15.8
Electrical machinery, apparatus, and supplies	121.0	+(2)	+30.9	126.8	+2.2	+53.6	28.72	+2.2	+17.4	39.5	+1.8	−.6	72.7	+.5	+17.3
Engines, turbines, tractors, and water wheels	151.1	−.4	+31.7	155.5	+.3	+57.6	32.07	+.7	+20.1	39.4	−.1	+2.3	81.5	+.8	+17.5
Foundry and machine-shop products	112.5	+.1	+21.6	118.9	+3.6	+41.7	29.19	+3.5	+16.5	42.0	+2.4	+.9	69.4	+1.0	+16.1
Machine tools	154.6	+1.2	+35.3	160.2	+.6	+48.2	31.94	−.6	+9.5	44.0	−1.0	−2.2	72.7	+.3	+11.7
Radios and phonographs	203.4	+3.4	−3.5	175.7	+5.8	+6.7	22.78	+2.3	+10.6	38.1	+3.3	−1.6	61.4	−.5	+14.8
Textile machinery and parts	85.8	−.5	+20.2	88.2	−1.5	+36.1	27.57	−1.0	+13.4	41.6	−1.2	+1.9	66.5	+.3	+12.1
Typewriters and parts	152.0	−.2	+36.3	143.8	−1.3	+40.9	25.25	−1.1	+3.4	39.7	−1.8	−7.9	63.6	+.7	+15.7
Transportation equipment	111.8	−6.8	+20.2	112.8	−4.0	+39.3	31.71	+3.0	+15.8	36.0	+2.9	−2.0	88.5	−.4	+18.5
Aircraft	212.1	+2.7	+32.6	750.8	+10.0	+56.6	29.28	+7.1	+10.4	41.5	+5.4	−1.9	70.6	+1.5	+13.4
Automobiles	102.1	−12.5	+19.2	102.5	−12.5	+38.2	34.91	−.5	+14.5	34.9	+2.6	−4.4	92.0	−.3	+20.3
Cars, electric and steam railroad	73.1	−.8	+3.1	69.2	−1.2	+15.2	30.98	−.5	+12.5	41.2	−.2	−1.2	75.2	−.8	+17.5
Locomotives	68.2	−.3	+3.6	66.2	−.3	+15.1	31.68	−.3	+11.9	41.2	−.2	−1.2	76.9	−.1	+17.4
Shipbuilding	107.2	−.2	+3.9	107.2	−.2	+15.2	31.68	−.3	+11.9	41.2	−.2	−1.2	76.9	−.1	+17.4
Nonferrous metals and their products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Aluminum manufactures	124.2	+.6	+19.2	127.2	+1.2	+36.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Brass, bronze, and copper products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Clocks and watches and time-recording devices	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Jewelry	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Lighting equipment	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Silverware and plated ware	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Smelting and refining—copper, lead, and zinc	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Lumber and allied products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Furniture	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Lumber—sawmills	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Lumber—millwork	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Turpentine and rosin	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Stone, clay, and glass products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Brick, tile, and terra cotta	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Cement	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Glass	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Pottery	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Nondurable goods															
Textile products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Clothing, men's	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Clothing, women's	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Cotton goods	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Dyeing and finishing textiles	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Hats, fur-felt	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Knit goods	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Silk goods	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Woolen goods	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Leather and its manufactures	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Boots and shoes	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Leather	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Food and kindred products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Baking	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Beverages	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Butter	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Canning and preserving	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Confectionery	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Flour	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Ice cream	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Meat packing	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Sugar refining	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Paper and printing	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Boxes, paper	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Paper and pulp	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Printing and publishing—book and job	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Printing and publishing—newspapers and periodicals	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Chemicals and allied products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Chemicals	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Explosives	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Fertilizers	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Paints and varnishes	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Soap	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Rubber products	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Rubber boots and shoes	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Rubber goods, other than boots and shoes	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4
Rubber tires and inner tubes	102.1	+.2	+15.2	103.2	+1.1	+30.2	28.99	+.9	+14.1	39.4	+.8	−2.1	73.6	+.1	+16.4

Typewriters and parts	152.0	−.2	+36.3	143.8	−1.3	+40.9	25.25	−1.1	+3.4	39.7	−1.8	−7.9	63.6	+.7	+15.7
Transportation equipment	111.8	−6.8	+20.2	112.8	−4.0	+39.3	31.71	+3.0	+15.8	36.0	+2.9	−2.0	88.5	−.4	+18.5
Aircraft	812.1	+2.7	+32.6	750.8	+10.0	+56.6	29.28	+7.1	+10.4	41.5	+5.4	−1.9	70.6	+1.5	+13.4
Automobiles	118.7	−9.0	+20.7	115.3	−6.7	+38.3	32.08	+2.5	+14.5	34.9	+2.6	−4.4	92.0	−.3	+20.3
Cars, electric- and steam-railroad	72.7	+1.5	+23.2	87.4	+4.8	+58.0	28.84	+3.2	+28.5	39.4	+2.4	+8.2	73.3	+.8	+17.5
Locomotives	63.3	+1.2	+75.1	52.6	+4.2	+113.6	32.25	+2.9	+22.0	43.6	−1.1	+7.4	74.0	+4.1	+13.5
Shipbuilding	102.4	+2.2	+2.9	118.8	+6.4	+21.5	31.44	+4.1	+17.9	38.2	+3.4	+7.3	81.7	+.4	+7.8
Railroad repair shops	62.1	−2.7	+6.3	67.0	+5.5	+16.1	31.31	+8.4	+9.2	44.2	+6.6	+7.0	71.1	+2.1	+2.0
Electric railroad	63.0	−.5	+1.1	68.7	+2.6	+12.0	30.81	+3.1	+10.8	44.7	+1.9	+3.6	67.5	+1.0	+6.8
Steam railroad	62.0	−2.8	+6.8	67.1	+6.1	+16.6	31.39	+9.1	+9.2	44.1	+7.0	+7.3	71.4	+2.2	+1.6
Nonferrous metals and their products	112.9	+1.3	+14.7	109.2	+4.4	+32.6	26.22	+3.1	+15.6	39.6	+3.7	−3.1	65.6	−.3	+19.5
Aluminum manufactures	132.6	+.9	+19.5	141.2	+5.0	+40.6	26.82	+4.1	+17.5	41.1	+4.3	−(2)	65.3	−.1	+18.0
Brass, bronze, and copper products	116.9	−1.8	+13.8	116.6	−.1	+30.4	28.21	+1.7	+14.5	38.7	+.7	−8.8	73.0	+1.1	+25.8
Clocks and watches and time-recording devices	123.7	+7.7	+13.9	121.9	+12.5	+27.8	22.40	+4.4	+12.2	39.8	+4.4	+.6	56.3	−(2)	+12.6
Jewelry	96.4	+6.1	+13.4	74.7	+10.2	+20.8	23.28	+3.8	+6.6	39.9	+5.6	−2.7	57.8	−1.6	+8.4
Lighting equipment	90.8	−.8	+17.9	86.8	−2.2	+32.2	24.15	−1.4	+12.2	37.3	+.5	−5.9	64.9	−1.9	+19.5
Silverware and plated ware	76.3	+3.4	+18.2	72.5	+8.3	+45.7	26.00	+4.8	+23.2	40.5	+5.0	+12.0	64.7	−(2)	+9.0
Smelting and refining—copper, lead, and zinc	92.1	+.3	+19.8	92.4	+6.0	+48.5	29.56	+5.6	+24.0	42.3	+6.3	+2.8	69.8	−.6	+20.5
Stamped and enameled ware	153.4	+1.6	+10.9	157.0	+7.4	+27.1	23.83	+5.6	+14.6	39.1	+5.8	−4.6	61.1	+(2)	+20.5
Lumber and allied products	73.0	+.1	+9.6	71.4	+6.1	+21.2	22.08	+6.0	+10.6	42.0	+5.1	−2.6	53.2	+.6	+13.1
Furniture	89.2	+1.5	+9.2	79.2	+7.1	+15.7	21.04	+5.5	+5.9	41.2	+4.2	−6.7	51.3	+.4	+13.1
Lumber:															
Millwork	57.1	−.3	+9.5	56.1	+2.2	+19.6	22.74	+2.5	+9.2	42.3	+2.2	−4.6	53.9	+.4	+14.2
Sawmills	55.9	−.7	+9.8	56.2	+6.4	+25.4	22.70	+7.2	+14.2	42.4	+6.3	+.1	54.2	+.9	+13.2
Stone, clay, and glass products	71.9	+.3	+5.7	70.4	+6.5	+20.8	24.85	+6.2	+14.2	39.7	+4.7	−.1	63.0	+1.1	+13.3
Brick, tile, and terra cotta	52.0	−3.3	+2.6	46.2	+.1	+14.8	21.75	+3.6	+12.0	40.9	+2.7	−5.2	53.1	+1.0	+18.4
Cement	69.9	+.3	+9.0	77.1	+6.4	+27.9	27.63	+6.0	+17.2	41.2	+5.5	+2.3	67.1	+.4	+14.8
Glass	109.6	+1.5	+9.8	120.0	+10.5	+29.4	26.41	+8.8	+17.7	38.8	+8.2	+5.0	68.5	+.8	+12.3
Marble, granite, slate, and other products	44.5	+.3	−4.3	39.7	+3.4	−1.5	26.04	+3.1	+2.9	39.6	+1.7	−.1	65.7	+.6	+2.8
Pottery	75.8	+4.2	+6.0	64.5	+9.2	+18.1	22.34	+4.8	+11.5	38.9	+1.7	−2.9	61.4	+1.9	+12.5
Nondurable goods															
Textiles and their products	102.8	+2.8	+1.0	92.1	−7.7	+5.4	17.77	+4.8	+4.3	34.4	+1.4	−6.5	51.5	+2.5	+11.2
Fabrics	97.3	−.7	+2.7	90.0	+.4	+8.4	17.41	+1.2	+5.6	35.4	+.3	−7.0	49.1	+1.1	+13.4
Carpets and rugs	100.8	+1.0	+18.1	97.6	+.6	+29.6	22.80	−.3	+9.7	35.4	−1.2	−6.9	64.5	+.8	+16.3
Cotton goods	100.8	−1.2	+6.6	97.0	+.2	+17.6	15.20	+1.4	+10.3	35.7	+1.4	−5.3	42.5	+.3	+16.9
Cotton small wares	96.4	+.3	+2.3	90.8	+.4	+2.4	17.50	+.1	+.2	35.8	−2.6	−7.7	49.7	+2.3	+11.2
Dyeing and finishing textiles	109.4	+.3	−1.5	93.8	−.3	−1.0	20.83	−.6	+.4	36.4	+.1	−10.1	56.8	−.7	+12.0
Hats, fur-felt	88.7	+5.8	−1.7	87.0	+7.7	−2.6	26.78	+1.8	−.8	36.4	−3.3	−15.3	76.3	+3.5	+13.7
Knit goods	116.3	+.2	+.2	119.3	+6.0	+1.5	17.84	+5.9	+1.4	35.4	+3.8	−6.9	51.3	+2.3	+8.6
Silk and rayon goods	80.2	+.7	+.7	65.6	−2.7	−.7	15.91	−3.3	−1.4	34.2	−4.7	−10.8	46.0	+.7	+9.5
Woolen and worsted goods	78.3	−3.0	−4.0	68.5	−4.6	+6.0	20.18	−1.7	+10.4	34.4	−3.4	−6.4	58.9	+1.7	+17.6
Wearing apparel	113.0	+10.8	−2.4	92.4	+25.2	0	18.81	+13.0	+2.5	32.3	+4.7	−5.9	56.3	+4.3	+8.4
Clothing, men's	111.0	+3.4	+1.4	91.8	+6.2	+5.3	19.45	+2.7	+3.9	31.6	+1.4	−5.5	61.1	−(2)	+9.7
Clothing, women's	146.2	+24.9	−6.9	114.7	+60.9	−3.4	21.47	+28.8	+3.7	32.3	+9.3	−6.8	60.1	+10.8	+10.4
Corsets and allied garments	88.1	−(2)	+2.9	81.7	+1.9	+1.7	15.27	+1.9	−1.2	32.2	−.3	−4.6	47.5	+2.9	+4.0
Men's furnishings	127.6	−1.6	+.5	102.4	+6.1	+5.1	14.03	+7.8	+4.7	33.0	+5.9	−5.4	37.8	+2.9	+11.0
Millinery	52.9	+36.6	−10.4	40.3	+69.6	−16.4	22.12	+24.2	−6.8	34.7	+17.6	+1.8	61.7	+.7	−7.1
Shirts and collars	116.0	+2.3	−.4	102.8	+7.2	−2.0	12.77	+4.8	−1.7	33.8	+2.9	−8.7	38.9	−.6	+8.0

See footnotes at end of table.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, August 1937*—Continued

MANUFACTURING—Continued

[Indexes are based on 3-year average 1923–25=100 and are adjusted to 1933 Census of Manufactures]

Industry	Employment			Pay rolls			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Index, August 1937	Percentage change from—		Index, August 1937	Percentage change from—		August 1937	Percentage change from—		August 1937	Percentage change from—		August 1937	Percentage change from—	
		July 1937	August 1936		July 1937	August 1936		July 1937	August 1936		July 1937	August 1936		July 1937	August 1936
Nondurable goods—Continued													*Cents*		
Leather and its manufactures	96.6	+0.3	+2.3	83.7	−1.1	+4.2	$20.29	−1.5	+1.8	37.8	−1.4	−5.4	54.1	+0.2	+8.0
Boots and shoes	98.6	+.6	+3.4	78.7	−1.3	+2.0	19.24	−1.9	−1.3	37.6	−1.9	−7.0	51.9	+.4	+7.2
Leather	93.9	−.8	−1.8	103.8	−.2	+10.4	24.64	+.6	+12.4	38.9	+.3	+.4	62.8	−.1	+11.3
Food and kindred products	132.5	+6.1	+3.6	131.2	+2.3	+15.1	23.80	−3.6	+11.1	41.0	−3.0	+.3	58.0	−1.5	+12.2
Baking	135.3	−1.0	+4.0	132.4	−1.9	+13.9	25.37	−.9	+9.4	42.3	−1.5	+2.3	60.4	+.3	+7.0
Beverages	230.7	−1.6	+7.5	273.4	−4.0	+15.3	34.95	−2.5	+7.3	42.1	−2.0	+.1	83.4	−.9	+6.5
Butter	94.3	−3.1	+4.1	77.8	−.4	+10.3	22.99	+2.8	+5.9	49.1	+.8	−1.5	47.0	+1.7	+8.0
Canning and preserving	278.0	+32.5	+10.1	293.9	+20.0	+27.2	16.90	−9.5	+15.4	38.5	−8.4	−.1	45.5	+.3	+17.6
Confectionery	73.3	+5.9	−.3	75.2	+16.9	+13.7	18.55	+10.4	+14.1	38.6	+9.6	+5.6	48.3	+.8	+9.3
Flour	77.5	−.5	+.5	80.2	+.8	+7.5	26.63	+1.4	+7.1	45.0	−.7	−3.1	58.2	+1.4	+9.3
Ice cream	89.8	−3.6	+7.1	84.2	−1.6	+14.4	28.71	+2.1	+6.9	49.7	−.7	+4.3	57.6	+2.5	+2.7
Slaughtering and meat packing	86.8	−3.4	−5.1	96.6	−3.3	+10.3	27.99	+.1	+16.3	40.2	−.8	−5.6	69.6	+.7	+24.0
Sugar, beet	71.3	+34.6	−17.9	74.6	+33.3	−7.2	23.89	−1.0	+13.0	38.1	+1.3	−4.4	63.5	−4.4	+19.2
Sugar refining, cane	76.9	−5.0	−4.6	81.2	+.4	+22.0	29.36	+5.7	+27.9	42.9	+1.3	+12.7	67.1	+4.4	+10.7
Tobacco manufactures	61.8	+2.0	−1.9	57.2	+2.5	+6.9	17.39	+.5	+9.1	37.8	+.6	−1.7	46.0	+.2	+11.7
Chewing and smoking tobacco and snuff	55.7	+.5	+.8	66.3	+.6	+15.2	17.85	+.1	+14.3	35.5	−.5	+1.1	50.7	+.5	+13.3
Cigars and cigarettes	62.5	+2.1	−2.2	56.1	+3.1	+6.0	17.30	+1.0	+8.6	38.1	+.7	−2.3	45.5	+.2	+11.5
Paper and printing	106.3	+.3	+6.2	102.6	+1.0	+14.8	28.13	+.7	+8.1	39.1	+1.1	+.1	74.1	−.2	+7.8
Boxes, paper	102.6	+.4	+7.1	102.8	+2.4	+11.1	20.57	+2.1	+3.8	39.3	+1.4	−4.8	52.8	+.4	+9.1
Paper and pulp	119.1	−.3	+9.1	123.8	+3.9	+27.8	25.98	+4.2	+17.1	41.5	+3.0	+.5	62.7	+1.1	+16.4
Printing and publishing:															
Book and job	96.9	+1.3	+5.1	89.6	−.6	+12.2	29.30	−1.9	+6.7	38.5	−.6	+2.8	77.0	−1.7	+4.5
Newspapers and periodicals	103.0	−.2	+2.9	99.1	−.7	+7.3	36.16	−.5	+4.2	36.6	+.5	−.9	94.9	+(2)	+5.6
Chemicals and allied products, and petroleum refining	124.8	+.4	+10.1	140.7	+2.9	+30.2	29.41	+2.4	+18.3	39.5	+2.4	+1.1	75.6	−.2	+16.8
Other than petroleum refining	123.9	+.3	+10.4	137.8	+2.1	+29.0	26.83	+1.8	+16.8	40.3	+1.9	−.2	68.0	−.5	+16.4
Chemicals	137.2	−1.7	+11.5	156.1	+1.4	+32.6	31.56	+3.2	+18.9	40.6	+3.0	+.1	77.8	+.2	+18.8
Cottonseed—oil, cake, and meal	54.3	+29.9	+18.8	47.9	+35.5	+27.8	12.14	+4.4	+7.6	48.0	+2.2	+1.9	25.4	+2.0	+4.9
Druggists' preparations	111.8	+5.2	+11.5	123.0	+9.8	+16.9	24.12	+4.4	+4.8	39.8	+5.7	−1.0	57.6	−1.1	+4.9
Explosives	95.8	+.5	+8.5	107.1	+3.1	+21.3	32.10	+2.6	+11.8	40.1	+2.6	−.1	80.1	+(2)	+12.0
Fertilizers	73.2	+4.8	+20.3	79.0	+2.5	+42.7	17.91	−2.2	+18.7	39.2	−1.1	+3.6	45.9	−.6	+15.5
Paints and varnishes	132.8	−2.6	+6.7	135.4	−2.1	+19.3	28.06	+.5	+11.8	40.7	−.6	−2.1	69.0	+1.1	+14.0
				401.4	+2.2	+33.7	24.53	+1.4	+18.0	38.8	+.6	−1.2	63.1	+.8	+19.4

Explosives	95.8	+.5	+8.5	107.1	+3.1	+21.3	32.10	+2.6	+11.8	40.1	+2.6	−.1	80.1	(2)	+12.0
Fertilizers	73.2	+4.8	+20.3	79.0	+2.5	+42.7	17.91	−2.2	+18.7	39.2	−1.1	+3.6	45.9	−.6	+15.5
Paints and varnishes	132.8	−2.6	+6.7	135.4	−2.1	+19.3	28.06	+.5	+11.8	40.7	−.6	−2.1	69.0	+1.1	+14.0
Rayon and allied products	402.7	+.4	+12.9	401.4	+2.2	+33.7	24.53	+1.4	+18.0	38.8	+.6	−1.2	63.1	+.8	+19.4
Soap	101.9	−.5	+.2	117.7	+.7	+17.0	27.98	+1.2	+16.8	39.3	+.8	−3.0	71.6	+.4	+20.3
Petroleum refining	128.2	+.6	+8.4	150.3	+5.0	+33.9	35.67	+4.4	+23.5	37.2	+4.0	+5.3	97.2	+.4	+18.4
Rubber products	97.9	+1.8	+6.2	97.0	+.2	+6.8	26.53	−1.5	+.6	34.7	−.1	−6.3	78.6	−1.0	+9.8
Rubber boots and shoes	77.1	+24.9	+2.6	73.2	+33.7	+21.0	23.85	+7.1	+18.0	39.7	+6.5	+2.3	60.1	+.6	+14.9
Rubber goods, other than boots, shoes, tires, and inner tubes	135.1	−1.2	+13.3	134.1	−1.2	+21.7	22.89	−(3)	+7.4	38.2	−.1	−1.1	60.3	+.2	+10.9
Rubber tires and inner tubes	88.4	−1.4	+2.9	89.8	−4.1	−2.0	29.55	−2.7	−4.8	30.9	−2.7	−13.4	96.3	−.5	+10.0

NONMANUFACTURING

[Indexes are based on 12-month average 1929=100]

Coal mining:															
Anthracite	41.2	−8.5	+0.2	27.2	−22.7	−13.3	$19.25	−15.5	−13.5	21.7	−16.7	−18.8	92.1	+0.6	+9.9
Bituminous	78.8	+3.9	+2.6	73.8	+11.1	+12.8	23.58	+6.8	+10.0	26.6	+6.5	−3.1	89.4	+1.3	+12.0
Metalliferous mining [3]	83.4	+1.8	+35.4	83.0	+6.7	+72.2	31.62	+4.8	+27.2	44.5	+4.5	+8.6	71.1	+.1	+17.7
Quarrying and nonmetallic mining	54.9	−1.0	−.7	53.2	+4.7	+15.2	24.06	+5.8	+15.9	44.3	+5.0	+1.5	54.1	+.1	+13.8
Crude-petroleum producing	80.4	+1.0	+7.2	71.2	+.4	+19.3	33.50	−.6	+11.3	39.5	−.9	+2.2	83.9	+.1	+9.2
Public utilities:															
Telephone and telegraph	79.8	+.1	+8.6	92.1	−(2)	+13.5	30.94	−.1	+4.5	39.0	−1.2	−3.3	82.4	+1.1	+8.4
Electric light and power and manufactured gas	98.1	+.9	+5.4	102.3	+.4	+14.0	33.64	−.5	+8.1	39.3	−1.4	−1.1	86.2	+.9	+11.2
Electric-railroad and motorbus operation and maintenance	73.4	−(2)	+1.4	73.1	+3.2	+9.9	32.71	+3.3	+8.4	47.1	+2.6	+2.9	68.5	+.6	+5.9
Trade:															
Wholesale	91.8	+1.3	+6.3	79.0	+2.7	+13.4	31.31	+1.3	+6.6	43.4	+.7	+1.3	72.3	+.8	+6.1
Retail	86.2	−1.6	+4.6	72.3	−.7	+12.3	22.58	+.9	+7.2	43.5	+.4	−.7	56.6	+.1	+7.6
General merchandising	93.8	−2.2	+4.9	85.6	−2.0	+12.1	19.21	+.2	+6.9	39.0	−(1)	−2.6	52.8	+.4	+10.3
Other than general merchandising	84.2	−1.4	+4.5	69.5	−.5	+12.3	25.18	+.9	+7.5	44.8	+.5	−.2	57.8	−.1	+6.9
Hotels (year-round) [4]	86.8	+.8	+4.3	74.4	+1.5	+12.6	14.86	+.7	+7.9	47.3	−.3	+.2	31.1	+.6	+7.7
Laundries	94.2	−1.0	+5.2	86.0	−1.1	+12.2	17.17	−.1	+6.7	43.5	−1.0	+.3	39.6	+.9	+6.2
Dyeing and cleaning	84.9	−1.2	+1.7	69.0	+1.6	+9.2	20.23	+2.8	+7.4	43.2	+1.0	−.3	47.3	+1.5	+6.2
Brokerage	(5)	−1.3	+.1	(5)	−1.6	+4.4	38.85	−.3	+4.3	(5)	(5)	(5)	(5)	(5)	(5)
Insurance	(5)	+.3	+1.7	(5)	−1.6	+5.5	38.93	−1.8	+3.8	(5)	(5)	(5)	(5)	(5)	(5)
Building construction	(5)	+2.4	+9.1	(5)	+5.2	+28.1	32.28	+2.8	+17.4	34.7	+1.8	+2.3	93.0	+1.1	+15.2

[1] Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments as all reporting firms do not furnish man-hours. Percentage changes over year are computed from indexes. Percentage changes over month in average weekly earnings for the manufacturing groups, for all manufacturing industries combined, and for retail trade are also computed from indexes.

[2] Less than 1/10 of 1 percent.

[3] May, June, and July 1937 data for metalliferous mining revised as follows:

May.—Employment index 78.5, percentage change from April, +2.9; from May 1936, +28.9; pay-roll index 79.8, percentage change from April, +3.9; from May 1936, +67.5; average weekly earnings $32.24.

June.—Employment index 79.5, percentage change from May, +1.4; from June 1936, +28.5; pay-roll index 77.7, percentage change from May, −2.7; from June 1936, +61.2; average weekly earnings $31.11, percentage change from June 1936, +25.5.

July.—Employment index 82.0, percentage change from July 1936, +33.8; pay-roll index 77.8, percentage change from June, +0.1; from July 1936, +68.8; average weekly earnings $30.02.

[4] Cash payments only; the additional value of board, room, and tips cannot be computed.

[5] Not available.

Indexes of Employment and Pay Rolls, January 1936 to August 1937

Indexes of employment and pay rolls are given in tables 2 and 3 for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for 13 nonmanufacturing industries, including 2 subgroups under retail trade, by months from January 1936 to August 1937, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to August 1937.

The indexes of factory employment and pay rolls are computed from returns supplied by representative establishments in 89 manufacturing industries and cover wage earners only. The base used in computing these indexes is the 3-year average, 1923–25, as 100. In August 1937 reports were received from 25,194 manufacturing establishments employing 5,014,885 workers, whose weekly earnings were $129,749,627. The employment reports received from these establishments cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 89 industries included in the monthly survey of the Bureau of Labor Statistics.

TABLE 2.—*Indexes of Employment and Pay Rolls in All Manufacturing Industries Combined and in the Durable- and Nondurable-Goods Groups* [1]

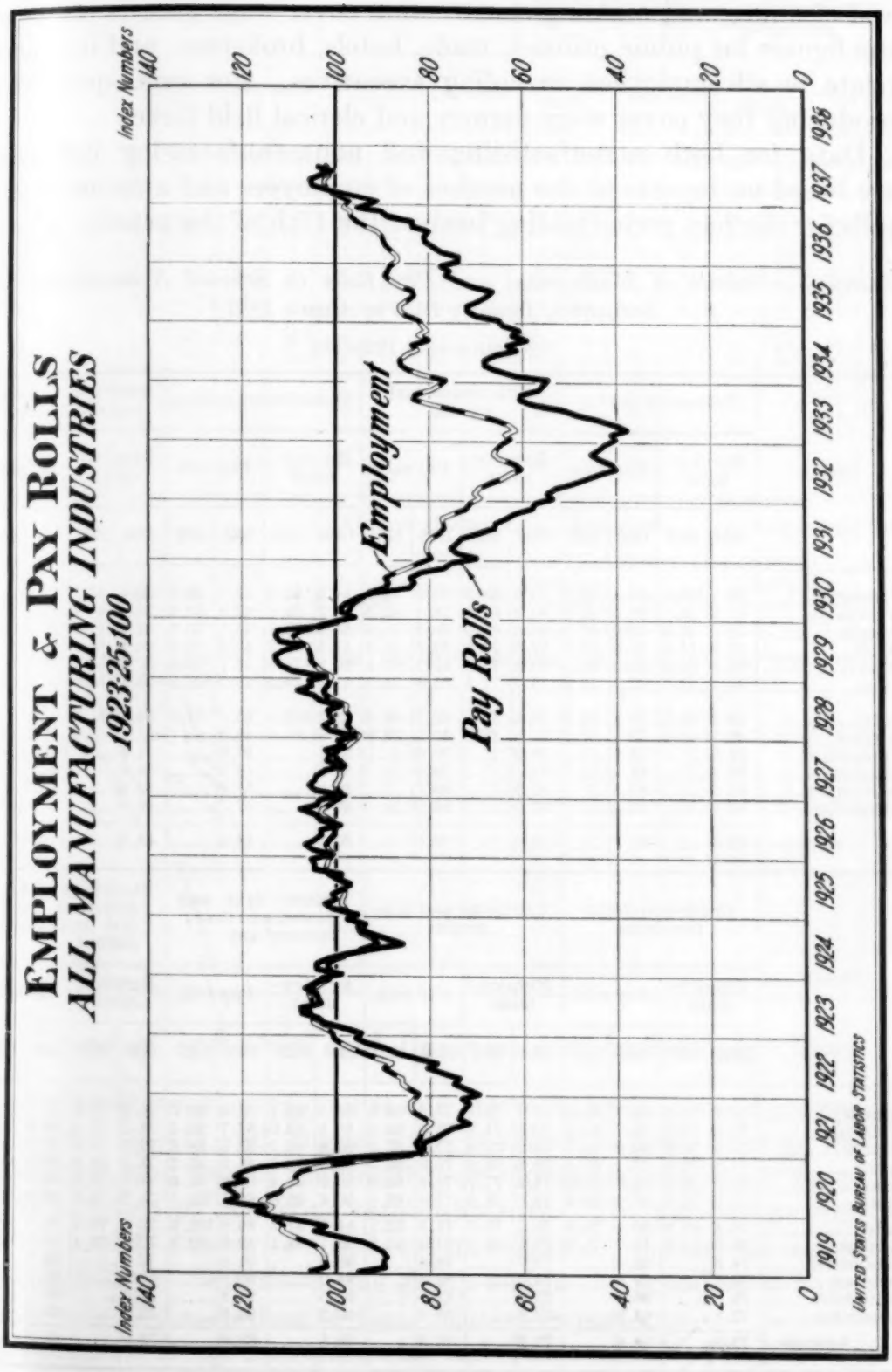
[Adjusted to 1933 Census of Manufactures—3-year average 1923-25=100]

Month	Manufacturing											
	Total				Durable goods [2]				Nondurable goods [2]			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	86.8	96.5	73.8	90.7	78.7	90.4	66.9	86.6	95.4	103.0	82.5	96.0
February	86.9	99.0	73.7	95.8	78.6	93.2	66.6	92.5	95.8	105.2	82.7	99.9
March	87.9	101.1	77.6	101.1	80.2	96.4	71.8	100.0	96.1	106.1	84.9	102.6
April	89.1	102.1	79.3	104.9	82.3	98.6	76.0	106.4	96.3	105.9	83.5	102.9
May	89.8	102.3	80.8	105.2	84.0	99.9	78.5	107.5	96.0	104.8	83.8	102.3
June	90.1	101.1	81.1	102.9	84.7	98.8	79.0	104.6	95.9	103.5	83.9	100.8
July	91.2	101.4	80.2	100.4	84.6	98.9	75.9	100.7	98.2	104.1	85.6	100.0
August	93.5	102.3	83.5	103.8	84.7	98.1	77.0	103.9	102.8	106.8	91.8	103.6
September	95.5	.....	83.6	.....	85.7	.....	77.2	.....	105.9	.....	91.6	.....
October	96.7	.....	89.0	.....	89.2	.....	85.3	.....	104.7	.....	93.7	.....
November	96.9	.....	90.7	.....	91.0	.....	88.9	.....	103.3	.....	92.9	.....
December	98.1	.....	95.2	.....	92.7	.....	93.4	.....	104.0	.....	97.5	.....
Average	91.9	.....	82.4	.....	84.7	.....	78.0	.....	99.5	.....	87.9	.....

[1] Comparable indexes for earlier years will be found in the April 1937 issue of the Monthly Labor Review.

[2] Includes the following groups of manufacturing industries: Iron and steel; machinery; transportation equipment; railroad repair shops; nonferrous metals; lumber and allied products; and stone, clay, and glass products.

[3] Includes the following groups of manufacturing industries: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.


EMPLOYMENT & PAY ROLLS
ALL MANUFACTURING INDUSTRIES
1923-25=100
Index Numbers
140
120
100
80
60
40
20
0
Employment
Pay Rolls
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938
UNITED STATES BUREAU OF LABOR STATISTICS

The indexes of nonmanufacturing industries are also computed from data supplied by reporting establishments, but the base is the 12-month average for 1929 as 100. Figures for mining, laundries, dyeing and cleaning, and building construction cover wage earners only, but the figures for public utilities, trade, hotels, brokerage, and insurance relate to all employees, including executives. For crude-petroleum producing they cover wage earners and clerical field force.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the pay period ending nearest the 15th of the month.

TABLE 3.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1936 to August 1937* [1]

[12-month average 1929=100]

Month	Anthracite mining				Bituminous-coal mining				Metalliferous mining				Quarrying and nonmetallic mining			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	59.1	54.1	54.4	42.7	79.8	84.6	70.6	79.9	54.2	66.8	41.7	58.4	39.4	45.7	25.5	34.6
February	61.2	52.7	76.7	41.0	80.2	84.8	78.4	82.4	55.5	69.6	42.8	63.4	36.9	46.7	23.9	37.8
March	52.5	48.9	42.6	37.8	80.4	85.9	70.2	88.4	55.9	73.1	45.1	70.6	42.2	49.1	30.9	41.3
April	49.8	54.0	28.6	63.9	77.5	72.6	62.6	54.4	57.5	76.2	45.5	76.9	48.4	53.1	36.1	48.1
May	54.9	51.0	56.3	44.4	76.2	77.8	62.2	67.8	60.8	[2]78.5	47.7	[2]79.8	52.0	54.9	42.1	51.4
June	51.2	51.1	42.0	50.9	75.7	77.9	61.5	71.2	61.9	[2]79.5	48.2	[2]77.7	53.5	55.4	44.0	52.6
July	48.4	45.0	37.2	35.2	75.5	75.8	62.6	66.4	61.3	[2]82.0	46.1	[2]77.8	54.4	55.5	43.9	50.8
August	41.1	41.2	31.4	27.2	76.9	78.8	65.4	73.8	61.6	83.4	48.2	83.0	55.3	54.9	46.2	53.3
September	47.6	-----	34.9	-----	78.2	-----	71.0	-----	63.1	-----	50.0	-----	54.9	-----	44.8	-----
October	49.9	-----	48.5	-----	81.1	-----	79.2	-----	64.2	-----	53.7	-----	54.6	-----	46.2	-----
November	51.5	-----	40.3	-----	82.3	-----	80.7	-----	62.9	-----	54.6	-----	52.6	-----	43.5	-----
December	54.8	-----	55.4	-----	83.9	-----	85.0	-----	64.4	-----	57.7	-----	49.4	-----	39.4	-----
Average	51.8	-----	45.7	-----	79.0	-----	70.8	-----	60.3	-----	48.4	-----	49.5	-----	38.9	-----

Month	Crude-petroleum producing				Telephone and telegraph				Electric light and power, and manufactured gas				Electric-railroad and motorbus operation and maintenance [3]			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	71.1	72.7	55.7	61.0	70.1	74.4	75.0	83.6	86.1	92.1	84.8	92.3	70.7	72.5	65.0	68.0
February	70.8	73.5	55.7	63.8	69.9	74.8	76.2	82.2	86.1	92.0	84.7	93.3	71.7	72.5	68.3	68.7
March	70.9	74.2	56.0	63.7	70.2	75.4	77.2	87.2	86.8	92.2	85.9	94.5	71.2	72.6	67.8	69.2
April	71.3	75.8	57.1	67.4	70.8	76.6	76.0	86.3	88.0	92.9	86.2	95.2	71.3	72.9	65.9	69.4
May	72.7	76.7	58.0	67.9	71.6	77.7	78.5	89.5	89.0	94.4	87.0	97.6	71.5	73.3	66.1	70.1
June	73.7	79.1	58.9	70.5	72.1	78.5	77.4	88.6	90.4	96.0	88.1	100.1	71.7	73.3	66.8	71.1
July	75.4	79.6	60.4	70.9	73.1	79.7	79.9	92.1	91.7	97.3	89.8	101.9	72.4	73.4	66.5	70.8
August	75.0	80.4	59.7	71.2	73.5	79.8	81 2	92.1	93.1	98.1	89.8	102.3	72.4	73.4	66.5	73.1
September	74.5	-----	60.4	-----	73.7	-----	78.8	-----	93.5	-----	91.4	-----	72.8	-----	66.4	-----
October	73.6	-----	59.6	-----	73.8	-----	83.1	-----	94.0	-----	92.7	-----	73.1	-----	67.7	-----
November	73.2	-----	60.1	-----	73.7	-----	81.6	-----	93.5	-----	91.8	-----	73.0	-----	69.7	-----
December	72.4	-----	61.3	-----	73.6	-----	82.4	-----	93.2	-----	93.8	-----	72.5	-----	69.3	-----
Average	72.9	-----	58.6	-----	72 2	-----	78.9	-----	90.5	-----	88.8	-----	72.0	-----	67.2	-----

[1] Comparable indexes for earlier years for all of these industries, except year-round hotels, will be found in the February 1935 and subsequent issues of the Monthly Labor Review. Comparable indexes for year-round hotels will be found in the September 1935 issue of the Monthly Labor Review.

[2] Revised.

[3] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1.

TABLE 3.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1936 to August 1937*—Continued

Month	Wholesale trade				Total retail trade				Retail trade—general merchandising				Retail trade—other than general merchandising			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	85.6	90.7	66.6	72.6	80.4	85.4	62.1	68.0	88.2	95.1	76.4	83.8	78.4	82.9	59.1	64.7
February	85.0	92.0	66.6	74.1	79.7	85.2	61.6	67.9	85.1	93.9	73.9	82.9	78 3	82.9	59.1	64.8
March	85.6	92.1	69.0	75.0	81.9	88.5	63.5	70.5	90.9	100.3	77.3	87.6	79.5	85.4	60.7	67.0
April	85.7	91.9	67.9	75.4	85.2	88.8	65.3	71.9	97.4	99.6	81.0	89.1	82.0	86.0	62.1	68.3
May	84.6	90 8	68.2	76.1	85.0	89.9	65.8	73.5	95.5	102.1	80.8	91.5	82.3	86.7	62.7	69.8
June	84.6	90.3	68.4	76.3	85.5	90.5	66.4	74.4	96.4	102.9	81.3	92.5	82.6	87.2	63.3	70.6
July	85.4	90.6	69.0	76.9	83.2	87.6	65.1	72.8	90.7	95.9	77.3	87.3	81.2	85.4	62.6	69.8
August	86.3	91.8	69.7	79.0	82.4	86.2	64.4	72.3	89.4	93.8	76.4	85.6	80.5	84.2	61.9	69.5
September	88.0	-----	70.5	-----	86.6	-----	66.6	-----	98.5	-----	82.8	-----	83.5	-----	63.3	-----
October	89.0	-----	71.5	-----	88.7	-----	68.3	-----	103.9	-----	87.2	-----	84.7	-----	64.4	-----
November	89.7	-----	73.1	-----	90.1	-----	70.1	-----	109.3	-----	91.4	-----	85.1	-----	65.7	-----
December	91.0	-----	72.8	-----	99.6	-----	75.9	-----	143.4	-----	116.2	-----	88.1	-----	67.6	-----
Average	86.7	-----	69.4	-----	85.7	-----	66.3	-----	99.1	-----	83.5	-----	82.2	-----	62.7	-----

Month	Year-round hotels				Laundries				Dyeing and cleaning			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	81.9	85.5	64.9	70.4	81.5	88.5	68.3	76.4	71.5	76.8	51.6	55.6
February	82.8	86.4	66.5	72.5	81.2	88.6	67.8	76.3	70.3	76.2	49.0	54.6
March	82.8	86.9	66.0	72.7	82.1	88.7	69.9	77.5	74.7	81.1	56.4	61.7
April	83.2	88.4	66.3	74.5	83.2	88.5	70.9	78.5	81.8	84.9	64.1	68.8
May	84.1	87.7	67.0	73.6	85.5	90.3	75.6	81.4	87.3	88.6	72.2	73.9
June	83.9	86.9	66.6	74.0	87.2	93.5	75.8	85.5	87.5	92.1	69.2	79.2
July	83.3	86.1	66.0	73.3	90.5	95.2	79.0	86.9	85.5	86.0	64.8	68.0
August	83.2	86.8	66.1	74.4	89.6	94.2	76.7	86.0	83.5	84.9	63.2	69.0
September	84.2	-----	67.5	-----	89.6	-----	76.6	-----	86.7	-----	66.1	-----
October	85.4	-----	69.6	-----	87.6	-----	75.3	-----	86.5	-----	66.7	-----
November	84.6	-----	69.6	-----	87.0	-----	74.5	-----	81.3	-----	60.2	-----
December	84.0	-----	69.8	-----	87.6	-----	76.1	-----	77.7	-----	57.3	-----
Average	83.6	-----	67.2	-----	86.1	-----	73.9	-----	81.2	-----	61.7	-----

Trend of Industrial and Business Employment, by States

A comparison of employment and pay rolls, by States and geographic divisions, in July and August 1937, is shown in table 4 for all groups combined, and for all manufacturing industries combined, based on data supplied by reporting establishments. The percentage changes shown, unless otherwise noted, are unweighted—that is, the industries included in the manufacturing group and in the grand total have not been weighted according to their relative importance.

The totals for all manufacturing industries combined include figures for miscellaneous manufacturing industries in addition to the 89 manufacturing industries presented in table 1. The totals for all groups

combined include all manufacturing industries and each of the nonmanufacturing industries presented in table 3 except building construction.

TABLE 4.—*Comparison of Employment and Pay Rolls in Identical Establishments in July and August 1937, by Geographic Divisions and by States*

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll August 1937	Percentage change from July 1937	Amount of pay roll (1 week) August 1937	Percentage change from July 1937	Number of establishments	Number on pay roll August 1937	Percentage change from July 1937	Amount of pay roll (1 week) August 1937	Percentage change from July 1937
				Dollars					Dollars	
New England	**13,364**	**936,223**	**+0.6**	**22,345,056**	**−(1)**	**3,503**	**661,759**	**+1.2**	**15,253,423**	**+(1)**
Maine	813	60,948	+(1)	1,309,271	+.3	297	49,566	+.4	1,030,109	+.2
New Hampshire	600	40,550	+.5	876,735	−.1	205	32,958	+.2	689,468	−.7
Vermont	472	19,218	−1.2	438,258	−2.4	141	11,885	−3.0	266,804	−4.5
Massachusetts	[2] *8,301*	*506,899*	+(1)	*12,204,772*	*−.6*	*1,688*	*306,976*	*+.6*	*7,090,659*	*−1.1*
Rhode Island	1,247	94,922	−1.5	2,125,158	−3.2	421	77,067	−1.3	1,640,056	−3.8
Connecticut	1,931	213,686	+3.0	5,390,862	+2.9	751	183,307	+3.8	4,536,327	+3.8
Middle Atlantic	**33,762**	**2,283,182**	**+.6**	**63,049,384**	**+2.1**	**5,397**	**1,341,709**	**+1.1**	**36,697,929**	**+3.9**
New York	22,078	1,004,897	+.7	28,882,465	+.7	[3] *2,202*	*472,950*	*+1.8*	*13,284,014*	*+2.8*
New Jersey	3,973	364,786	+1.4	9,693,197	+3.1	[4] *841*	*275,016*	*+1.4*	*7,165,922*	*+3.8*
Pennsylvania	7,711	913,499	+.2	24,473,722	+3.4	*2,354*	*593,743*	[5] *+.1*	*16,247,993*	[5] *+4.3*
East North Central	**23,770**	**2,423,305**	**−1.3**	**68,570,823**	**+1.1**	**8,303**	**1,886,503**	**−1.5**	**54,547,630**	**+1.4**
Ohio	8,038	658,857	−.3	18,814,226	+3.2	2,564	*499,840*	−(1)	14,670,471	+3.9
Indiana	*2,494*	*288,783*	*+1.1*	*7,828,934*	*+5.3*	*920*	*241,969*	*+1.4*	*6,744,096*	*+6.1*
Illinois	[6] *6,245*	*663,282*	+.7	*18,125,981*	*+2.2*	*2,438*	*471,394*	*+1.1*	*12,911,771*	*+2.6*
Michigan	3,829	567,124	−5.1	17,502,055	−3.8	*1,003*	*490,655*	*−5.7*	*15,455,488*	*−8.6*
Wisconsin	[7] *3,164*	*245,259*	*−3.1*	*6,299,627*	*+1.0*	[6] *1,378*	*182,647*	[5] *−2.5*	*4,765,874*	[5] *+2.1*
West North Central	**11,568**	**447,513**	**+.1**	**11,119,906**	**+1.2**	**2,420**	**232,688**	**+.4**	**5,651,127**	**+.6**
Minnesota	2,185	98,306	+1.8	2,549,805	+2.6	426	50,237	+3.8	1,222,312	+2.0
Iowa	1,698	65,725	−1.3	1,602,516	+.8	419	39,258	−1.9	983,603	+.5
Missouri	3,009	178,230	−.2	4,416,634	+.5	873	102,853	+(1)	2,415,302	−(1)
North Dakota	530	5,318	+1.3	135,310	+5.2	57	799	+4.2	22,864	+7.2
South Dakota	472	8,312	−.5	212,279	+1.6	41	2,509	−.7	60,756	−.7
Nebraska	1,515	32,432	−2.0	786,620	−.1	157	11,378	−3.4	286,679	−1.8
Kansas	[8] *2,159*	*59,190*	[5] *−3.0*	*1,416,742*	[5] *+1.1*	*447*	*25,654*	*+.9*	*659,611*	*+1.0*
South Atlantic	**11,137**	**882,417**	**+.8**	**18,202,507**	**+3.9**	**2,767**	**594,649**	**+.9**	**11,345,768**	**+4.3**
Delaware	216	18,764	+6.0	442,087	+1.8	86	14,341	+6.8	323,704	+1.5
Maryland	*1,607*	*139,996*	*+.6*	*3,466,954*	*+2.7*	*560*	*98,068*	[5] *+.6*	*2,403,102*	[5] *+2.6*
District of Columbia	1,096	40,438	−1.5	1,060,795	−.8	37	3,637	−1.4	122,511	−2.8
Virginia	2,141	119,788	+.6	2,430,292	+4.1	474	84,440	+1.1	1,675,947	+4.5
West Virginia	1,260	162,063	+.4	4,241,383	+7.4	253	62,202	−.3	1,717,554	+7.4
North Carolina	1,469	170,460	+1.7	2,707,309	+6.7	582	155,272	+.4	2,433,008	+6.8
South Carolina	774	72,183	+.3	1,097,615	+.2	207	63,977	+.5	935,744	+.1
Georgia	1,521	119,371	+.1	1,988,006	+.4	379	92,723	+.5	1,388,559	+.2
Florida	1,053	39,354	+2.8	768,066	+4.1	189	19,989	+4.7	345,639	+7.4
East South Central	**4,244**	**311,078**	**+.8**	**5,954,812**	**+2.4**	**1,005**	**197,337**	**+.7**	**3,653,928**	**+2.6**
Kentucky	1,322	91,907	+.7	1,969,385	+2.3	301	39,435	−.7	861,991	+2.2
Tennessee	1,385	107,181	+1.7	1,961,532	+2.3	379	80,635	+2.5	1,437,778	+3.3
Alabama	952	94,087	−.3	1,713,484	+2.2	241	66,752	−.5	1,183,916	+2.4
Mississippi	585	17,903	+1.5	310,411	+2.3	84	10,515	+1.1	170,243	+1.7
West South Central	**4,636**	**210,360**	**+.7**	**4,938,181**	**+1.9**	**1,099**	**102,827**	**+1.2**	**2,310,455**	**+2.6**
Arkansas	[10] *474*	*22,166*	*+2.2*	*394,559*	*+.5*	*173*	*14,594*	*+3.8*	*247,866*	*+.2*
Louisiana	989	49,952	+3.0	993,168	+2.2	226	26,512	+4.6	465,132	+1.8
Oklahoma	1,372	46,960	−.2	1,216,513	+1.5	141	12,964	−1.8	331,133	+3.2
Texas	[11] *1,801*	*91,282*	*−.3*	*2,333,941*	*+2.3*	*559*	*48,757*	*−.5*	*1,266,324*	*+3.3*

[1] Less than 1/10 of 1 percent.
[2] Includes banks and trust companies, construction, municipal, agricultural, and office employment, amusement and recreation, professional services, and trucking and handling.
[3] Includes laundering and cleaning and water, light, and power.
[4] Includes laundries.
[5] Weighted percentage change.
[6] Includes automobile, and miscellaneous services restaurants, and building and contracting.
[7] Includes construction but not public works.
[8] Does not include logging.
[9] Includes financial institutions, miscellaneous services, and restaurants.
[10] Includes automobile dealers and garages and sand, gravel, and building stone.
[11] Includes business and personal service.

TABLE 4.—*Comparison of Employment and Pay Rolls in Identical Establishments in July and August 1937, by Geographic Divisions and by States*—Continued

[See note at head of table]

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll August 1937	Percentage change from July 1937	Amount of pay roll (1 week) August 1937	Percentage change from July 1937	Number of establishments	Number on pay roll August 1937	Percentage change from July 1937	Amount of pay roll (1 week) August 1937	Percentage change from July 1937
				Dollars					*Dollars*	
Mountain	4,260	146,167	−0.4	3,989,753	+4.5	572	44,674	−4.3	1,200,823	+2.6
Montana	673	21,983	+.4	662,295	+1.8	80	5,563	−2.7	159,023	+.3
Idaho	479	11,412	−3.3	325,689	+4.4	52	3,453	−11.2	103,051	+.2
Wyoming	301	9,278	+2.2	265,967	+13.2	41	1,930	+.8	62,479	+5.9
Colorado	1,223	48,662	+1.9	1,265,855	+5.0	190	19,211	+.6	520,922	+5.3
New Mexico	313	7,276	−.1	163,643	+1.2	33	918	−2.0	17,896	+3.8
Arizona	466	19,136	−.1	571,274	+6.1	38	2,844	+.9	82,739	+9.7
Utah	595	24,732	−5.3	620,336	+1.7	112	9,710	−13.6	221,889	−4.5
Nevada	210	3,688	+.2	114,694	+10.3	26	1,045	−.7	32,824	+9.0
Pacific	9,374	481,664	+3.7	13,607,431	+5.5	2,337	283,569	+5.8	7,854,771	+7.2
Washington	3,066	103,750	−1.6	2,924,292	+2.9	553	59,300	−2.2	1,641,599	+3.8
Oregon	1,358	60,450	+1.2	1,654,023	+5.5	299	36,764	+1.6	997,531	+8.2
California	[12] *4,950*	*317,464*	*+6.0*	*9,029,116*	*+6.3*	*1,485*	*187,505*	*+9.6*	*5,215,641*	*+8.1*

[12] Includes banks, insurance, and office employment.

Industrial and Business Employment and Pay Rolls in Principal Cities

A comparison of July 1937 employment and pay rolls with the August totals in 13 cities of the United States having a population of 500,000 or over is made in table 5. The changes are computed from reports received from identical establishments in both months.

In addition to reports for industries for which figures are published in this survey, reports have also been secured from establishments in other industries for inclusion in these city totals. As information concerning employment in building construction is not available for all cities at this time, figures for this industry have not been included in these city totals.

TABLE 5.—*Comparison of Employment and Pay Rolls in Identical Establishments in July and August 1937, by Principal Cities*

City	Number of establishments	Number on pay roll August 1937	Percentage change from July 1937	Amount of pay roll (1 week) August 1937	Percentage change from July 1937
New York, N. Y.	16,042	679,313	+1.7	19,174,749	+2.9
Chicago, Ill.	4,465	501,479	[1]	14,570,810	+1.6
Philadelphia, Pa.	2,333	215,302	+.6	5,888,184	+1.2
Detroit, Mich.	1,617	368,474	−5.0	11,860,676	−3.3
Los Angeles, Calif.	2,893	154,362	−.7	4,359,855	+1.5
Cleveland, Ohio	1,763	143,679	−1.5	4,163,716	+3.4
St. Louis, Mo.	1,549	143,730	+.2	3,720,297	+1.7
Baltimore, Md.	1,159	104,726	+.8	2,710,778	+2.9
Boston, Mass.	3,743	187,780	−.2	4,699,440	+.1
Pittsburgh, Pa.	1,184	228,200	+.3	6,942,683	+6.3
San Francisco, Calif.	1,599	91,702	+2.2	2,803,162	+3.9
Buffalo, N. Y.	903	74,449	−1.4	2,235,511	−.2
Milwaukee, Wis.	1,044	106,824	−1.2	3,041,846	+2.3

[1] Less than 1/10 of 1 percent.

UNEMPLOYMENT IN FOREIGN COUNTRIES IN THE SUMMER OF 1937

REDUCTIONS in unemployment continued to be marked throughout the summer of 1937, according to official unemployment figures. This tendency is noticeable in statistics covering trade-union members, unemployed registered with public exchanges, and compulsorily insured workers.

In Austria the compulsorily insured in receipt of benefit in September numbered 176,308 persons, as compared with 217,211 in the same month of 1936. Figures for France indicate a continuation of the decrease in unemployment which had been apparent for some months, there being 305,341 in receipt of benefit in September 1937 as compared with 407,733 in September 1936. Registration in Germany fell below the half-million mark in September 1937. In Great Britain the number registered varied little in the summer months of 1937, the total for June being 1,356,598, rising to 1,379,459 in July, and then dropping to 1,358,621 in August. As compared with the summer of 1936, however, these figures represented reductions of approximately a quarter of a million. In September a new series of statistics was introduced that shows the number on the register less those persons not actually unemployed on the date the count is made. Polish registration in September was 252,719. This was less than half the January registration, but only slightly below the figure of 265,849 for September 1936.

The table following gives statistics of unemployment in foreign countries as shown in official reports, by years from 1931 to 1936, and by months beginning with August 1936 and including the latest month for which figures are available.

Beyond comparisons of the figures in a single series for different periods, it is not possible to use the official unemployment statistics to measure volume of unemployment in a single country or to compare conditions in one country with those in another, owing to the fact that the coverage is not always complete. For example, only insured persons may be reported in some instances, or certain classes, such as agricultural labor, may be excluded.

Statement of Unemployment in Foreign Countries

Year and date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number of unemployed in receipt of benefit	Unemployment-insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Percent		Number	Percent	Number	Percent
1931	117,866	27.4	253,368	79,186	10.9	121,890	16.9
1932	120,454	29.4	309,969	161,468	19.0	175,259	20.7
1933	104,035	25.1	328,844	168,033	17.0	170,023	17.2
1934	86,865	20.5	287,528	182,855	19.0	166,229	17.2
1935	71,823	15.6	261,768	165,469	17.9	118,754	12.8
1936	53,992	12.2	259,185	122,256	13.4	91,451	10.0
1936							
August			217,991	108,404	11.4	92,729	9.8
September	52,482	12.0	217,211	105,978	11.3	78,948	8.4
October			228,624	101,070	10.8	74,537	8.0
November			257,063	112,881	12.1	94,332	10.1
December	46,863	10.7	290,452	131,565	14.4	92,619	10.2
1937							
January			316,050	131,645	14.5	97,737	10.7
February			309,178	124,669	13.7	82,125	9.0
March	44,004	9.9	277,126	113,296	12.4	79,711	8.7
April			239,280	97,979	10.8	66,163	7.3
May			215,176	95,888	10.6	75,673	8.4
June	43,010	9.7	196,067	86,344	9.5	78,052	8.6
July			187,360	84,348	9.3	78,831	8.7
August			178,081				
September			176,308				

Year and date (end of month)	Canada	Czechoslovakia			Danzig, Free City of	Denmark	
	Percent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Percent		Number	Percent
1931	16.8	291,332	102,179	8.3	24,898	53,019	17.9
1932	22.0	554,059	184,555	13.5	33,244	99,508	31.7
1933	22.3	738,267	247,613	16.9	31,408	97,417	28.8
1934	18.2	676,994	245,953	17.4	20,326	81,756	22.2
1935	15.4	686,269	235,623	15.9	17,983	76,195	19.8
1936	13.3	622,687	208,539	13.1	13,553	78,669	19.3
1936							
August	10.8	483,502	180,410	11.2	8,587	50,693	12.3
September	10.9	479,268	171,456	10.6	8,306	53,181	12.9
October	11.0	441,679	166,575	10.3	9,243	67,674	16.3
November	12.7	510,205	176,658	10.8	10,764	83,552	20.0
December	14.3	619,143	198,492	12.1	14,933	127,478	30.3
1937							
January	14.5	667,486	210,894	12.9	16,797	140,262	33.0
February	13.7	677,947	221,464	13.2	16,724	133,795	31.4
March	12.9	627,258	210,244	12.4	14,909	122,687	28.6
April	11.1	503,632	176,348	10.3	8,776	74,793	17.5
May	9.5	385,061	137,677	8.0	6,526	63,310	14.8
June	10.4	303,535	113,838	6.6	4,617	60,199	13.9
July	8.9	248,127	110,861	6.4	3,327	66,006	15.2
August	7.6	233,318			2,984	[1] 65,259	15.0
September		[1] 230,722					

[1] Preliminary figure.

Statement of Unemployment in Foreign Countries—Continued

Year and date (end of month)	Estonia	Finland	France	Germany	Great Britain
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Number of persons registered with employment exchanges
1931	3,632	11,522	56,112	4,573,218	2,668,000
1932	7,121	17,581	273,412	5,579,858	2,757,000
1933	8,210	17,139	276,033	4,733,014	2,520,616
1934	2,970	10,011	345,033	2,718,309	2,159,231
1935	1,779	7,163	426,931	[2] 2,151,039	2,036,422
1936	1,276	4,796	432,120	[2] 1,592,630	1,754,975
1936					
August	476	2,431	413,115	1,098,498	1,613,940
September	684	3,086	407,733	1,035,237	1,624,339
October	1,285	4,594	406,595	1,075,588	1,611,810
November	2,102	5,348	407,831	1,197,140	1,623,602
December	1,988	4,398	410,785	1,478,862	1,628,719
1937					
January	2,388	6,805	426,072	1,853,460	1,689,223
February	2,064	5,383	410,219	1,610,947	1,627,845
March	1,801	4,482	386,254	1,245,338	1,601,201
April	1,191	3,554	368,381	960,764	1,454,443
May	638	3,126	345,503	776,321	1,451,330
June	486	2,076	321,725	648,421	1,356,598
July	403	2,089	313,553	562,892	1,379,459
August	470	2,794	311,315	509,282	1,358,621
September	473		305,341	469,081	[3] 1,339,204

Year and date (end of month)	Great Britain and Northern Ireland				Hungary		
	Compulsory insurance				Employment exchanges, applications for work	Trade-unionist unemployed	
	Wholly unemployed		Temporary stoppages				
	Number	Percent	Number	Percent		Christian (Budapest)	Social Democratic
1931	2,129,359	16.7	587,494	4.6	52,305	977	27,635
1932	2,272,590	17.6	573,805	4.5	66,235	1,026	29,772
1933	2,110,090	16.4	456,678	3.5	60,595	1,085	26,716
1934	1,801,913	13.9	368,906	2.9	52,157	996	22,291
1935	1,714,844	13.2	312,958	2.3	52,048	967	18,315
1936	1,497,587	11.3	251,379	1.9	52,114	800	15,637
1936							
August	1,362,033	10.4	249,906	1.9	48,221	747	13,690
September	1,384,090	10.6	236,118	1.8	50,166	710	12,876
October	1,417,391	10.6	196,370	1.5	50,655	699	12,838
November	1,429,736	10.7	191,585	1.5	50,371	841	13,815
December	1,424,451	10.7	197,722	1.5	50,863	923	15,044
1937							
January	1,489,092	11.2	187,874	1.4	54,407	969	15,640
February	1,460,026	10.9	164,739	1.3	56,192	1,012	16,148
March	1,406,530	10.5	169,740	1.3	56,782	1,011	15,878
April	1,305,280	9.8	130,788	1.0	53,865	943	14,984
May	1,245,589	9.3	210,401	1.6	50,273	936	13,637
June	1,166,881	8.7	203,329	1.6	45,740	729	13,513
July	1,136,287	8.5	249,345	1.9	43,915	815	13,169
August	1,148,487	8.6	208,941	1.6	45,904	843	12,584
September	1,138,731	8.5	194,997	1.5			

[2] Includes the Saar.

[3] New series.

***Statement of Unemployment in Foreign Countries*—Continued**

Year and date (end of month)	Irish Free State	Italy	Japan		Latvia	Netherlands	
	Compulsory insurance—number unemployed	Number of unemployed registered wholly unemployed	Official estimates unemployed		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
			Number	Percent		Number	Percent
1931	25,230	734,454	422,755	6.1	8,709	82,800	18.1
1932	62,817	1,006,442	485,681	6.8	14,587	153,500	29.5
1933	72,255	1,018,955	408,710	5.6	8,156	163,000	31.0
1934	103,671	963,677	372,941	5.0	4,972	160,400	32.1
1935	[4] 119,498		356,103	4.6	4,825	173,673	36.3
1936	99,834				3,851	168,668	36.2
1936							
August	67,045		333,634	4.2	1,128	160,252	34.5
September	68,278		330,290	4.2	1,283	159,689	34.4
October	71,743		327,578	4.1	2,015	157,793	34.0
November	[5] 110,859		322,948	4.1	4,025	156,575	32.7
December	105 078		322,969	4.1	5,613	163,381	35.0
1937							
January	100,177		333,210	4.2	6,358	172,014	36.9
February	91,680		328,528	4.1	6,178	161,107	34.5
March	93,426		315,845	4.0	6,110	149,115	31.9
April	92,363		294,561	3.9	3,290	133,523	28.5
May	88,480				2,127	124,711	26.5
June	64,011				1,446	[1] 117,657	25.5
July	63,288				1,146	[1] 119,787	25.7
August	65,670				1,093	[1] 118,683	25.4
September	68,928						

Year and date (end of month)	New Zealand	Norway			Poland	Rumania
	Number unemployed registered by employment exchanges [6]	Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Percent			
1931	41,430		22.3	27,479	299,502	35,851
1932	51,549	14,790	30.8	[7] 32,705	255,582	38,899
1933	46,971	16,588	33.4	[7] 35,591	249,660	29,060
1934	39,235	15,963	30.7	35,121	342,166	16,871
1935	38,234	14,783	25.3	36,103	381,935	13,852
1936	36,890	13,267	18.8	32,643		13,549
1936						
August	45,045	9,647	13.2	23,477	270,766	7,496
September	44,263	10,535	14.2	28,122	265,849	8,852
October	41,908	12,635	16.8	31,332	280,485	9,549
November	39,056	14,330	18.8	35,119		11,526
December	35,286	16,632	21.7	36,260	402,814	16,224
1937						
January	31,416	18,045	23.2	35,435	532,662	18,778
February	28,941	18,163	23.1	34,440	545,651	19,653
March	27,907	18,457	23.2	32,951	525,041	17,392
April	27,953	17,561	21.8	31,824	443,140	12,609
May	28,302	14,813	18.1	26,298	334,527	10,784
June	29,326	13,020	15.6	22,028	294,334	
July	30,821	12,772	15.2	18,572	278,361	
August				20,045	261,386	
September					252,719	

[1] Preliminary figure. [4] Incomplete figures. [5] Special employment period.
[6] New series from 1933 on. [7] Revised figures.

Statement of Unemployment in Foreign Countries—Continued

Year and date (end of month)	Sweden		Switzerland				Yugoslavia
	Trade-unionists unemployed		Unemployment funds				
	Number	Percent	Wholly unemployed		Partially unemployed		Number of unemployed registered
			Number	Percent	Number	Percent	
1931	64,815	17.2	----------	5.9	----------	12.1	10,018
1932	89,922	22.8	----------	9.1	----------	12.2	14,761
1933	97,316	23.7	----------	10.8	----------	8.5	15,997
1934	80,216	18.9	----------	9.8	----------	6.1	15,647
1935	81,385	16.1	----------	11.8	----------	5.9	16,752
1936	71,552	13.6	----------	13.2	----------	5.3	19,436
1936							
August	47,144	9.0	58,300	10.9	28,500	5.1	12,135
September	49,514	9.5	60,629	11.0	28,336	5.1	11,593
October	57,128	10.9	61,100	11.5	24,000	4.3	13,780
November	67,869	12.8	65,900	12.3	20,000	3.6	14,239
December	99,776	18.5	78,864	14.3	18,176	3.3	22,069
1937							
January	85,717	15.8	87,300	16.6	17,500	3.3	35,170
February	80,637	14.5	84,100	16.0	16,000	3.0	39,510
March	83,024	14.9	66,985	12.7	14,488	2.7	35,324
April	68,156	12.1	51,300	9.7	12,100	2.2	24,765
May	51,903	9.2	37,800	7.2	10,200	1.9	16,936
June	49,109	8.6	34,082	6.4	10,217	1.9	11,258
July	42,451	7.4	34,300	6.6	10,300	1.9	11,543
August	40,953	7.1	----------	----------	----------	----------	10,845

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, SEPTEMBER 1937 [1]

BUILDING-CONSTRUCTION activity in September, measured by the value of permits issued, was below the level of the preceding month. Reports from 1,521 identical cities, with a population of 2,500 or more, showed a decrease of 8.5 percent for all construction. All classes of construction registered decreases. The greatest decrease was 13.6 percent in new nonresidential construction. Additions, alterations, and repairs decreased 12.3 percent, and new residential construction showed the smallest drop, 1.4 percent.

September construction activity, however, was slightly greater (0.1 percent) than in the corresponding month of last year. Increases in permit valuations, amounting to 17.5 percent and 7.6 percent, occurred in new nonresidential construction and additions, alterations, and repairs, respectively. There was a decrease of 13.9 percent, on the other hand, in indicated expenditures for new residential construction. However, private residential construction in September showed a decrease of only 4 percent in comparison with the same month of last year. In September 1936 the value of contracts awarded for Public Works Administration housing projects amounted to more than $6,600,000. During September 1937 no contracts were awarded for Public Works Administration housing projects.

Comparison of September 1937 with August 1937 and September 1936

A summary of building construction in 1,521 identical cities in August and September 1937 and September 1936 is given in table 1. A summary of the estimated cost of housekeeping dwellings and of the number of families provided for in new dwellings in 1,521 identical cities, having a population of 2,500 and over is shown in table 2 for the months of August and September 1937 and September 1936.

[1] More detailed information by geographic divisions and individual cities is given in a separate pamphlet entitled "Building Construction, September 1937," copies of which will be furnished upon request.

TABLE 1.—*Summary of Building Construction in 1,521 Identical Cities, September 1937*

Class of construction	Number of buildings			Estimated cost		
	September 1937	Percentage change from—		September 1937	Percentage change from—	
		August 1937	September 1936		August 1937	September 1936
All construction	61,890	+3.1	−1.0	$128,510,918	−8.5	+0.1
New residential	10,759	−1.0	−4.0	53,584,547	−1.4	−13.9
New nonresidential	12,647	+11.8	+1.2	43,695,788	−13.6	+17.5
Additions, alterations, and repairs	38,484	+1.7	−0.8	31,230,583	−12.3	+7.6

TABLE 2.—*Estimated Cost of Housekeeping Dwellings and Number of Families Provided for in 1,521 Identical Cities, September 1937*

Type of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	September 1937	Percentage change from—		September 1937	Percentage change from—	
		August 1937	September 1936		August 1937	September 1936
All types	$51,997,413	−2.9	−15.7	13,218	−2.3	−15.1
1-family	41,332,133	−2.9	−4.6	9,919	−2.7	−4.9
2-family [1]	2,833,936	−21.3	+17.7	1,087	+34.9	+22.1
Multifamily [2]	7,831,344	−9.2	−51.0	2,212	−12.7	−48.1

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Analysis by Size of City, September 1937

Table 3 shows the estimated cost of building construction for which permits were issued in September 1937 compared with August 1937 and September 1936, by size of city and by class of construction.

TABLE 3.—*Estimated Cost of Building Construction for Which Permits Were Issued, by Size of City, September 1937*

Size of city	Total construction			New residential buildings		
	Estimated cost, September 1937	Percentage change from—		Estimated cost, September 1937	Percentage change from—	
		August 1937	September 1936		August 1937	September 1936
Total, all cities	$128,510,918	−8.5	+0.1	$53,584,547	−1.4	−13.9
500,000 and over	41,926,088	−7.9	−13.8	17,841,369	+4.9	−26.1
100,000 and under 500,000	27,895,108	−8.6	+5.7	10,375,140	−1.1	−12.3
50,000 and under 100,000	15,983,082	+4.6	+25.9	4,693,174	−13.9	−9.7
25,000 and under 50,000	12,717,002	−5.5	+5.5	5,418,855	−1.8	−.8
10,000 and under 25,000	15,981,197	−6.0	+6.2	7,905,064	−7.3	−2.9
5,000 and under 10,000	10,001,203	+23.1	+25.8	4,882,760	+5.4	−3.9
2,500 and under 5,000	4,007,238	−62.1	−29.2	2,468,185	−8.9	+5.5
	New nonresidential buildings			Additions, alterations, and repairs		
Total, all cities	$43,695,788	−13.6	+17.5	$31,230,583	−12.3	+7.6
500,000 and over	13,540,664	−14.7	+.8	10,544,055	−16.5	−4.5
100,000 and under 500,000	10,010,689	−10.0	+33.2	7,509,279	−15.7	+6.6
50,000 and under 100,000	6,415,544	+11.3	+53.5	4,874,364	+20.1	+47.1
25,000 and under 50,000	4,383,142	+8.0	+12.4	2,915,005	−25.0	+8.4
10,000 and under 25,000	4,419,875	+7.1	+14.0	3,656,258	−15.8	+20.6
5,000 and under 10,000	3,871,627	+76.8	+158.6	1,246,816	−4.3	−8.9
2,500 and under 5,000	1,054,247	−85.8	−61.9	484,806	+3.3	−11.8

The estimated cost of housekeeping dwellings for which permits were issued in the 1,521 identical cities reporting for August and September 1937, together with the number of family-dwelling units provided in new dwellings, by size of city, is given in table 4.

TABLE 4.—*Estimated Cost of Housekeeping Dwellings and Number of Families Provided for in 1,521 Identical Cities, by Size of City, August and September 1937*

Size of city	Estimated cost of housekeeping dwellings			Number of families provided for in—							
				All types		1-family dwellings		2-family dwellings [1]		Multifamily dwellings [2]	
	September 1937	August 1937	Percentage change	September 1937	August 1937	September 1937	August 1937	September 1937	August 1937	September 1937	August 1937
Total, all cities	$51,997,413	$53,535,765	−2.9	13,218	13,533	9,919	10,193	1,087	806	2,212	2,534
500,000 and over	17,701,369	16,985,008	+4.2	4,092	3,995	2,233	2,168	344	222	1,515	1,605
100,000 and under 500,000	9,810,856	10,205,269	−3.9	2,663	2,799	2,169	2,316	275	212	219	271
50,000 and under 100,000	4,667,174	5,412,447	−13.8	1,249	1,376	955	1,031	148	93	146	252
25,000 and under 50,000	5,343,855	5,488,019	−2.6	1,362	1,384	1,177	1,233	95	78	90	73
10,000 and under 25,000	7,610,864	8,501,245	−10.5	2,040	2,235	1,844	1,932	119	117	77	186
5,000 and under 10,000	4,411,010	4,242,379	+4.0	1,125	1,055	936	889	65	46	124	120
2,500 and under 5,000	2,452,285	2,701,398	−9.2	687	689	605	624	41	38	41	27

[1] Includes 1- and 2-family dwellings with stores.

[2] Includes multifamily dwellings with stores.

Construction During 9 Months, 1936 and 1937

Cumulative totals for the first 9 months of 1937 compared with the same months of the preceding year are shown in table 5. The data are based on reports received from cities having a population of 2,500 and over.

TABLE 5.—*Estimated Cost of Building Construction in Cities of 2,500 Population and Over, First 9 Months, 1936 and 1937, by Class of Construction*

Class of construction	Estimated cost of building construction, first 9 months of—		Percentage change
	1937	1936	
All construction	$1,270,911,810	$1,118,909,801	+13.6
New residential	577,366,132	514,284,011	+12.3
New nonresidential	405,592,481	365,379,665	+11.0
Additions, alterations, and repairs	287,953,197	239,246,125	+20.4

Table 6 presents the estimated cost of housekeeping dwellings and number of family-dwelling units provided, in cities with a population of 2,500 and over, for the first 9 months of 1936 and 1937.

TABLE 6.—*Estimated Cost and Number of Families Provided for in Cities of 2,500 Population and Over, First 9 Months, 1936 and 1937, by Type of Dwelling*

Type of dwelling	Housekeeping dwellings					
	Estimated cost			Number of families provided for		
	First 9 months of—		Percentage change	First 9 months of—		Percentage change
	1937	1936		1937	1936	
All types	$568,799,505	$507,066,749	+12.2	140,557	125,336	+12.1
1-family	418,136,934	338,023,102	+23.7	94,526	77,515	+21.9
2-family [1]	24,786,593	17,963,911	+38.0	8,804	6,520	+35.0
Multifamily [2]	125,875,978	151,079,736	−16.7	37,227	41,301	−9.9

[1] Includes 1- and 2-family dwellings with stores. [2] Includes multifamily dwellings with stores.

The information on building permits issued during August and September 1937 and September 1936 is based on reports received by the Bureau of Labor Statistics from 1,521 identical cities having a population of 2,500 and over.

The information is collected by the Bureau of Labor Statistics direct from local building officials, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where the State departments of labor collect and forward the information to the Bureau. The cost figures shown in this report are estimates made by prospective builders on applying for permits

to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are included in the Bureau's tabulation. In addition to permits issued for private building construction, the statistics include the value of contracts for Federal and State buildings in the cities covered. Information concerning public building is collected by the Bureau from various Federal and State agencies having the power to award contracts for building construction. These data are then added to the data concerning private construction received from local building officials. In September 1937 the value of Federal and State buildings for which contracts were awarded in these 1,521 cities amounted to $11,400,000; in August 1937, to $8,455,000; and in September 1936, to $12,998,000.

Construction From Public Funds

The value of contracts awarded and force-account work started during August and September 1937 and September 1936 on construction projects financed from various Federal funds is shown in table 7.

TABLE 7.—*Value of Contracts Awarded and Force-Account Work Started on Projects Financed From Federal Funds, August and September 1937, and September 1936* [1]

Federal agency	Value of contracts awarded and force-account work started		
	September 1937	August 1937 [2]	September 1936
Total	$60,094,618	$172,881,799	[2] $132,552,506
Public Works Administration:			
Federal	449,035	1,079,770	1,952,864
Non-Federal:			
N. I. R. A.	2,039,620	2,639,895	[2] 13,909,858
E. R. A. A.	10,741,303	11,005,191	[2] 37,410,927
Federal projects under The Works Program	2,415,775	25,076,120	[2] 31,037,898
Regular governmental appropriations	44,448,885	133,080,823	48,240,959

[1] Preliminary, subject to revision.
[2] Revised.
[2] Revised: includes $4,335,045 low-cost housin projects (Housing Division, P. W. A.).

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for August and September 1937 and September 1936 is shown in table 8.

TABLE 8.—*Value of Public-Building and Highway-Construction Awards Financed Wholly From State Funds*

Type of project	Value of contracts		
	September 1937	August 1937	September 1936
Public buildings	$2,332,117	$1,484,343	$2,119,488
Highway construction	10,453,119	8,224,832	7,616,727

Retail Prices

FOOD PRICES IN SEPTEMBER 1937

THE RETAIL COST of food rose 0.4 percent between August 17 and September 14. This slight increase, which reverses the slow downward movement of the preceding 3 months, was due primarily to seasonal advances in the cost of dairy products and eggs and a sharp upturn in the price of sugar.

The food cost index for September 14 was 85.8 percent of the 1923–25 average. This is 1.7 percent higher than the index for the corresponding period of a year ago. Meats have made the greatest advance during the year, 14.4 percent. Fruits and vegetables, with a decline of 16.6 percent, is the only commodity group that is significantly below last year's level. Food costs are now 28.7 percent higher than in September 1932. They are, however, 20.5 percent below the September 1929 level when the index was 108.0.

Details by Commodity Groups

The cost of cereals and bakery products declined 0.6 percent between August 17 and September 14. Flour, with a decrease of 3.1 percent, showed the largest price change in the group. Lower prices for this item were reported from 37 cities. The average price of each of the three bread items remained unchanged. Increases were reported from some cities and decreases from others. The most significant changes in the prices of white bread were increases of 0.8 cent per pound in Omaha and 0.5 cent in Cleveland, and a decrease of 0.3 cent per pound in Philadelphia.

Meat costs decreased 0.2 percent. A sharp break of 6.0 percent in the cost of fresh pork more than offset increases in the cost of each of the other subgroups. These increases were 0.3 percent for the beef products, 1.3 percent for cured pork, 0.2 percent for lamb, 2.0 percent for roasting chickens, and 1.8 percent for canned salmon. This is the first decrease shown for meats since February. The recent steady upward movement amounted to 18.3 percent between February and August. During the past month, price advances were reported for 15 of the 21 meat items included in the index. Ten of the fifteen price increases amounted to 1.0 percent or more. These ranged from 1.1 percent for breast of lamb to 3.4 percent for sliced bacon. The

higher-priced meat items, with the exception of sliced bacon, decreased in price or showed relatively little change.

The dairy-products index rose 2.6 percent, a result of seasonal influences. Prices advanced for each of the five items in the group. Butter increased 4.7 percent with higher prices in 49 cities. Fresh milk rose 1.8 percent due to price increases in seven cities. The largest increases were 1.1 cents per quart in St. Louis and 0.9 cent in New York City, Richmond, and Denver.

Egg prices made a seasonal advance of 9.8 percent. Prices were higher in every city.

The cost of fruits and vegetables declined 2.9 percent. The group index, which has moved steadily downward since May, is now 16.6 percent below the level of a year ago. During the month, price reductions of 7.9 percent for apples, 7.1 percent for white potatoes, 3.9 percent for onions, and 25.2 percent for sweetpotatoes accounted in the main for the lower costs of the fresh items. Lemon prices increased 4.4 percent and prices of green vegetables rose sharply. Price decreases for 6 of the 10 canned items lowered the subgroup index 0.8 percent. The decline of 3.8 percent for the dried products was chiefly due to a drop of 9.3 percent in the price of navy beans.

The index for the beverages and chocolate group declined 0.3 percent. The price of cocoa declined 2.3 percent. Coffee and tea continued their slow advance with a price increase of 0.1 percent.

There was a decrease of 1.9 percent in the cost of fats and oils. Prices were lower for all seven items in the group. The largest reductions were 3.0 percent for lard compound, 2.4 percent for oleomargarine, and 2.1 percent for lard.

TABLE 1.—*Indexes of Retail Food Costs in 51 Large Cities Combined, by Commodity Groups* [1]

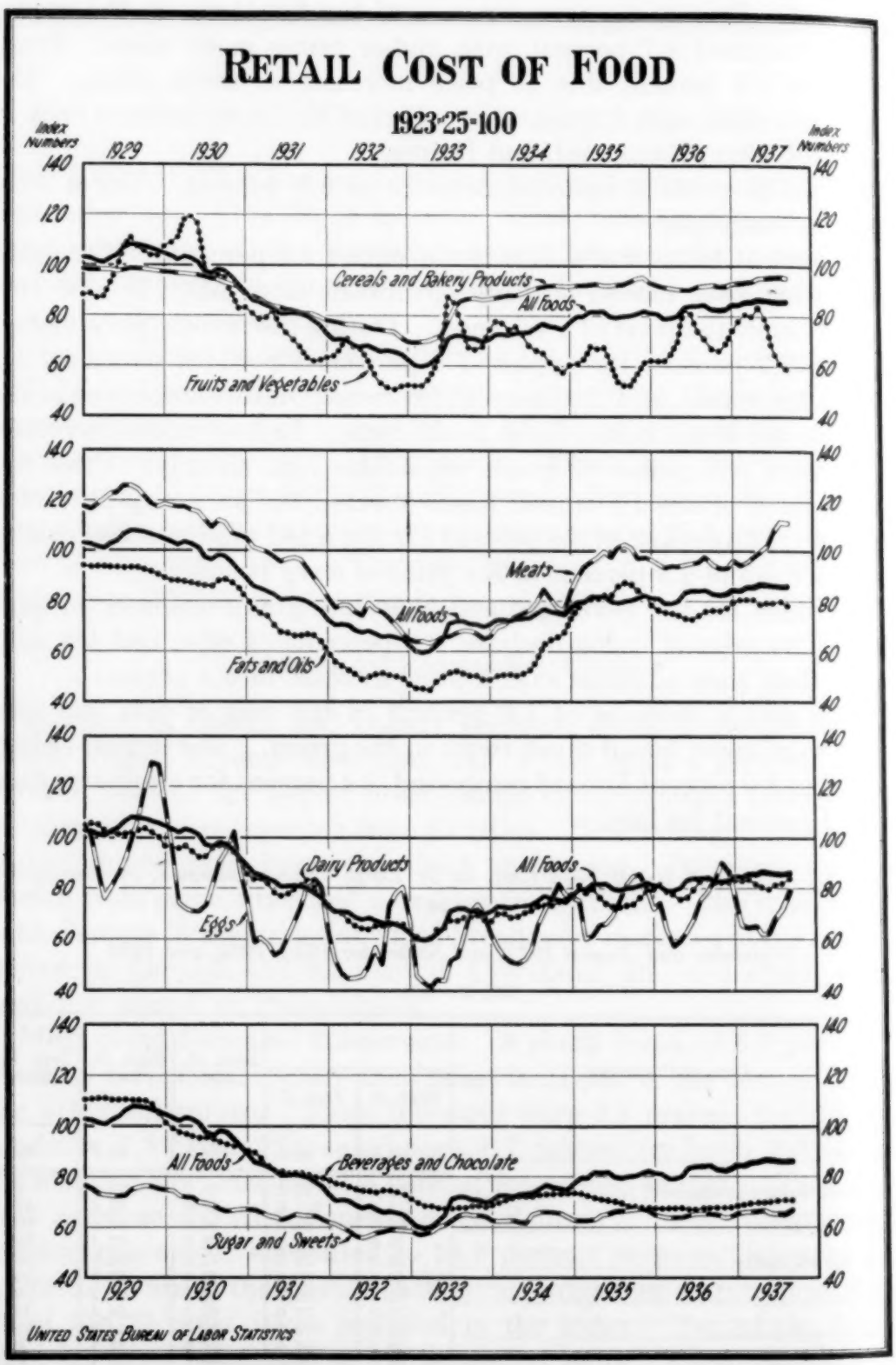
September and August 1937, and September 1936, 1932, and 1929

[1923–25=100]

Commodity group	1937		Sept. 15, 1936	Sept. 15, 1932	Sept. 15 1929
	Sept. 14	Aug. 17			
All foods	85.8	85.5	84.3	66.7	108.0
Cereals and bakery products	95.1	95.6	92.1	74.3	98.6
Meats	111.4	111.6	97.4	75.8	124.7
Dairy products	83.9	81.9	84.2	65.4	103.0
Eggs	79.0	71.9	78.5	62.4	108.9
Fruits and vegetables	59.2	61.0	71.1	[2] 52.8	107.6
Fresh	56.3	58.0	70.3	51.3	108.6
Canned	82.0	82.7	81.7	[2] 69.2	96.3
Dried	72.2	75.0	65.5	54.4	107.1
Beverages and chocolate	70.4	70.7	67.7	74.6	110.2
Fats and oils	78.4	79.9	75.9	51.3	93.4
Sugar and sweets	66.5	64.8	65.0	58.2	75.9

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined with the use of population weights. [2] Revised.

The cost of sugar and sweets rose 2.6 percent, due to a 3.5-percent advance in the price of sugar. Price increases for sugar were reported from 47 cities.



Indexes of retail food costs for September and August 1937, together with corresponding indexes for September 1936, 1932, and 1929, are shown in table 1. The chart above shows trends in the costs

of all foods and of each major commodity group for the period from January 1929 to September 1937, inclusive.

Prices of 41 of the 84 foods in the index advanced between August and September, 38 decreased, and 5 showed no change. Prices of 58 of these items were higher than in September 1936. Beef, citrus fruits, and navy beans have made the largest increases over a year ago while potatoes, cabbage, and apples show the greatest reductions. Average prices of each of the 84 foods for 51 cities combined are shown in table 2 for September and August 1937 and for September 1936.

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined*[1]

September and August 1937 and September 1936

[*Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article		1937		1936
		Sept. 14	Aug. 17	Sept. 15
Cereals and bakery products:				
Cereals:		*Cents*	*Cents*	*Cents*
*Flour, wheat	pound	4.8	4.9	4.9
*Macaroni	do	15.4	15.4	15.3
*Wheat cereal	28-oz. package	24.6	24.6	24.3
*Corn flakes	8-oz. package	7.8	7.8	8.2
*Corn meal	pound	5.5	5.5	5.4
Hominy grits	24-oz. package	9.8	9.8	9.3
*Rice	pound	8.4	8.4	8.8
*Rolled oats	do	7.5	7.5	7.5
Bakery products:				
*Bread, white	do	8.9	8.9	8.2
Bread, whole-wheat	do	9.8	9.8	9.3
Bread, rye	do	10.0	10.0	9.0
Cake	do	25.2	25.0	25.6
Soda crackers	do	17.6	18.1	18.3
Meats:				
Beef:				
*Sirloin steak	do	48.5	49.0	39.1
*Round steak	do	44.1	44.6	35.4
*Rib roast	do	37.0	36.4	29.5
*Chuck roast	do	28.6	28.5	22.3
*Plate	do	18.9	18.5	14.6
Liver	do	25.5	25.0	25.8
Veal: Cutlets	do	45.7	45.3	41.2
Pork:				
*Chops	do	41.2	44.0	39.5
Loin roast	do	35.1	37.3	32.9
*Bacon, sliced	do	44.9	43.5	40.9
Bacon, strip	do	37.8	36.7	35.7
*Ham, sliced	do	53.0	52.9	50.8
Ham, whole	do	33.2	33.3	33.0
Salt pork	do	26.7	26.6	24.0
Lamb:				
Breast	do	15.2	15.0	13.4
Chuck	do	24.9	24.7	23.5
*Leg	do	31.7	31.3	30.2
Rib chops	do	41.2	41.9	38.0
Poultry: *Roasting chickens	do	36.5	35.8	32.8
Fish:				
Salmon, pink	16-oz. can	13.6	13.3	13.1
*Salmon, red	do	26.4	26.0	25.4
Dairy products:				
*Butter	pound	40.7	38.8	42.4
*Cheese	do	29.0	28.7	29.8
Cream	½ pint	14.7	14.6	15.8
Milk, fresh (delivered and store)[2]	quart	12.5	12.2	12.2
*Milk, fresh (delivered)	do	12.7	12.5	12.5
*Milk, evaporated	14½-oz. can	7.6	7.6	7.9
*Eggs	dozen	40.7	37.1	40.9
Fruits and vegetables:				
Fresh:				
Apples	pound	4.6	4.9	5.4
*Bananas	do	6.3	6.2	6.2
Lemons	dozen	36.1	34.6	31.5

[1] Prices for individual cities are combined with the use of population weights.

[2] Average prices of milk delivered by dairies and sold in grocery stores, weighted according to the relative proportion distributed by each method.

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined—Continued*

September and August 1937 and September 1936—Continued

Article	1937		1936
	Sept. 14	Aug. 17	Sept. 15
Fruits and vegetables—Continued.			
Fresh—Continued.	*Cents*	*Cents*	*Cents*
*Oranges—dozen	45.6	45.8	37.4
Beans, green—pound	8.9	7.9	9.1
*Cabbage—do	3.1	2.9	4.7
Carrots—bunch	5.2	4.9	5.1
Celery—stalk	8.4	8.3	8.0
Lettuce—head	9.7	8.4	11.6
*Onions—pound	3.8	3.9	3.5
*Potatoes—do	1.9	2.0	3.2
Spinach—do	9.4	8.1	8.2
Sweetpotatoes—do	4.1	5.4	4.5
Canned:			
Peaches—no. 2½ can	19.6	19.6	18.2
Pears—do	21.8	21.9	22.1
Pineapple—do	23.2	23.1	22.5
Asparagus—no. 2 can	29.7	29.4	26.6
Beans, green—do	11.8	12.1	12.0
*Beans with pork—16-oz. can	8.1	8.1	7.2
*Corn—no. 2 can	12.8	13.0	12.8
*Peas—do	16.0	16.1	16.3
*Tomatoes—do	9.1	9.2	9.6
Tomato soup—10½-oz. can	8.0	8.1	8.3
Dried:			
Peaches—pound	17.0	17.0	17.4
*Prunes—do	10.7	10.7	10.0
*Raisins—15-oz. package	10.3	10.3	9.8
Black-eyed peas—pound	9.6	9.7	9.4
Lima beans—do	11.5	11.8	11.6
*Navy beans—do	9.3	10.3	7.7
Beverages and chocolate:			
*Coffee—do	26.0	26.0	24.3
*Tea—do	72.9	72.8	70.5
Cocoa—8-oz. can	10.2	10.5	10.4
Chocolate—8-oz. package	16.5	16.6	16.3
Fats and oils:			
*Lard—pound	17.1	17.5	16.5
Lard compound—do	15.1	15.6	15.0
*Vegetable shortening—do	21.5	21.8	21.4
Salad oil—pint	25.2	25.4	25.2
Mayonnaise—½ pint	17.5	17.6	16.8
*Oleomargarine—pound	18.4	18.8	18.3
Peanut butter—do	19.6	19.9	19.0
Sugar and sweets:			
*Sugar—do	5.7	5.5	5.6
Corn sirup—24-oz. can	14.6	14.6	14.1
Molasses—18-oz. can	14.5	14.5	14.3
Strawberry preserves—pound	22.1	22.1	20.3

Details by Regions and Cities

The 0.4 percent rise in the composite index resulted from higher costs in 18 cities and decreases in 32 cities. The increases were most pronounced in the coastal cities of the North Atlantic and Pacific regions, while the decreases were greatest in the Central areas. In New York City, where food costs made the greatest advance, meats increased 2.0 percent, fresh milk rose an average of 0.9 cent per quart, and fresh fruits and vegetables advanced 1.4 percent. The largest decreases occurred in Memphis, Jacksonville, and Kansas City, where the cost of both meats and fruits and vegetables declined more than the average for all cities combined.

Indexes of the retail cost of food, by cities and regions, are given in table 3 for September and August 1937 and for September of earlier years.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Regions and Cities* [1]

September and August 1937 and September 1936, 1935, 1933, 1932, and 1929

[1923–25=100]

City and regional area	1937		1936	1935	1933	1932	1929
	Sept. 14	Aug. 17	Sept. 15	Sept. 10	Sept. 12	Sept. 15	Sept. 15
United States	**85.8**	**85.5**	**84.3**	**80.1**	**71.9**	**66.7**	**108.0**
New England	**85.6**	**84.4**	**81.4**	**80.0**	**71.7**	**67.3**	**107.4**
Boston	84.0	82.4	79.2	78.4	70.4	66.3	106.2
Bridgeport	90.9	[2] 89.5	87.2	84.4	74.9	70.8	108.0
Fall River	87.5	[2] 86.5	[2] 82.5	79.5	71.2	65.7	107.8
Manchester	86.0	85.5	83.2	80.6	73.2	66.9	106.9
New Haven	89.7	89.3	86.6	84.0	75.0	70.9	110.7
Portland, Maine	85.4	85.9	81.9	79.5	72.5	67.1	109.0
Providence	84.7	83.8	80.9	79.4	71.3	65.7	107.5
Middle Atlantic	**86.7**	**85.9**	**84.3**	**80.9**	**72.3**	[2] **68.8**	**108.0**
Buffalo	82.7	83.1	81.7	79.5	73.2	66.4	109.2
Newark	88.7	87.2	85.7	83.9	72.7	71.9	106.8
New York	87.6	85.2	85.0	81.7	72.7	71.4	107.0
Philadelphia	88.2	89.0	[2] 85.5	81.6	73.1	68.0	108.5
Pittsburgh	84.9	85.0	81.9	78.5	69.0	64.7	109.4
Rochester	84.5	85.5	84.6	79.5	73.3	64.3	108.8
Scranton	81.2	82.5	80.4	77.1	71.0	65.0	110.2
East North Central	**86.4**	**86.5**	**86.0**	**80.1**	**71.8**	**65.4**	**109.6**
Chicago	87.6	87.6	86.2	80.3	71.0	69.4	109.7
Cincinnati	87.2	86.7	89.9	83.7	73.5	64.6	112.3
Cleveland	84.9	84.4	85.3	79.2	71.9	63.3	108.2
Columbus, Ohio	83.5	83.9	87.9	82.3	74.5	64.4	107.2
Detroit	86.4	86.9	84.9	78.7	71.1	59.9	109.5
Indianapolis	84.7	86.0	86.5	78.8	74.1	64.8	112.7
Milwaukee	89.9	91.0	88.5	81.4	74.0	68.6	110.9
Peoria	84.9	85.7	86.5	81.5	71.9	64.1	108.5
Springfield, Ill	83.0	83.7	86.8	79.8	70.7	62.6	107.9
West North Central	**87.2**	**88.1**	**89.9**	**82.6**	**72.5**	**65.1**	**109.4**
Kansas City	87.0	88.8	89.9	81.6	73.4	66.6	109.4
Minneapolis	88.0	88.8	92.3	81.7	72.8	65.4	110.3
Omaha	82.6	83.8	85.7	81.8	67.0	62.4	104.9
St. Louis	90.1	90.3	91.3	84.8	74.8	65.7	111.5
St. Paul	83.3	84.8	87.8	79.6	71.5	63.6	108.5
South Atlantic	**84.8**	**85.2**	**84.2**	**81.1**	**71.5**	**65.8**	**107.7**
Atlanta	82.4	83.1	82.0	78.5	70.3	62.4	108.9
Baltimore	88.8	88.9	87.4	83.5	72.3	67.5	106.9
Charleston, S. C	85.8	85.4	84.7	81.9	71.4	66.7	106.5
Jacksonville	81.6	83.6	81.6	78.7	68.1	64.0	103.7
Norfolk	83.5	83.8	83.8	79.1	71.7	68.6	113.2
Richmond	80.5	81.3	81.5	77.5	70.6	62.0	104.0
Savannah	85.2	86.3	84.8	81.6	71.9	65.6	109.2
Washington, D. C	87.7	87.2	86.4	84.8	74.2	68.6	110.3
East South Central	**81.3**	**82.5**	**81.6**	[2] **77.9**	**69.7**	**61.0**	**107.2**
Birmingham	78.2	79.5	77.8	73.3	65.6	58.8	103.8
Louisville	89.1	89.5	89.8	86.8	77.9	63.8	113.9
Memphis	81.2	83.5	83.8	79.7	70.6	64.2	108.4
Mobile	80.9	81.9	79.3	76.2	68.2	62.5	105.7
West South Central	**83.3**	**83.5**	**83.4**	**78.8**	**70.0**	**63.7**	**105.5**
Dallas	81.4	82.1	82.6	78.6	69.8	62.6	106.4
Houston	82.6	82.7	82.2	76.3	67.1	60.8	103.4
Little Rock	81.0	82.0	82.6	78.5	68.5	62.3	109.5
New Orleans	87.3	86.8	86.1	82.4	74.5	69.7	106.5
Mountain	**87.3**	**87.5**	**87.4**	[2] **82.8**	[2] **70.7**	**65.1**	**104.1**
Butte	83.0	83.9	81.7	77.0	65.1	64.0	106.2
Denver	89.7	89.6	90.8	[2] 85.9	73.2	67.6	103.8
Salt Lake City	84.3	84.7	83.0	79.1	[2] 67.9	61.2	103.9
Pacific	**82.6**	**81.8**	**80.7**	**75.2**	[2] **73.5**	[2] **65.9**	**104.8**
Los Angeles	78.8	77.4	77.3	70.4	[2] 71.5	61.6	103.7
Portland, Oreg	85.6	[3]	82.0	76.2	68.7	66.6	104.4
San Francisco	85.8	84.8	84.0	80.0	[2] 76.9	[2] 70.8	106.7
Seattle	84.2	84.0	82.3	76.9	72.1	66.1	103.5

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined for regions and for the United States with the use of population weights.

[2] Revised.

[3] Not available.

The Bureau collects prices in 11 cities that cannot be included in the food cost indexes, since no prices are available for the base period 1923–25. These cities were selected from areas formerly not adequately represented in the food price reporting service.

Average prices for each of these cities for which data were available have been released since June 1935. Consumption weights have been provided for these cities, making it possible to measure changes in food costs from one period to another. Percentage changes in food costs between August and September 1937 are shown in table 4 for nine of these cities.

TABLE 4.—*Percentage Changes in Retail Food Costs for Specified Cities*

Sept. 14, 1937, Compared with Aug. 17, 1937

Region and city	Percentage change Sept. 14, 1937, compared with Aug. 17, 1937								
	All foods	Cereals and bakery products	Meats	Dairy products	Eggs	Fruits and vegetables	Beverages and chocolate	Fats and oils	Sugar and sweets
West North Central:									
Cedar Rapids	−1.8	−6.0	−2.2	+1.5	+3.8	−2.5	−0.5	−0.7	+4.5
Sioux Falls	0	−.6	−1.4	+2.6	+1.2	−2.8	+1.6	+.4	+6.5
Wichita	−1.4	−.4	−2.7	+1.3	+6.2	−5.3	−1.6	−2.3	+1.4
South Atlantic:									
Columbia, S. C.	−.3	−1.3	+1.1	+2.2	+13.8	−4.0	+.4	−1.8	+1.4
Winston-Salem	−1.8	−.4	+1.0	+.4	+13.2	−9.4	+.2	−2.9	+2.6
East South Central:									
Knoxville	−.5	−1.0	−.3	+2.2	+5.6	−4.5	−.4	+.1	+4.2
West South Central:									
El Paso	−.3	+.1	+1.5	+2.5	+11.5	−7.9	−.4	−.1	−1.2
Oklahoma City	−.8	−.4	−3.9	+5.2	+3.4	−4.2	−.5	−2.4	+.5
Pacific: Spokane	−1.2	+.5	−.5	+2.0	+13.8	−10.0	−.3	−.9	−1.4

ELECTRICITY PRICES, SEPTEMBER 15, 1937

RESIDENTIAL rates for electricity are secured quarterly from 51 cities. These rates are used for computing average prices and typical bills in each city for the quantities of electricity which most nearly approximate the consumption requirements for the usual domestic services for a five-room house, including living room, dining room, kitchen, and two bedrooms. The blocks of consumption which have been selected as representative of average conditions throughout the country are 25 and 40 kilowatt-hours for the use of electricity for lighting and small appliances alone; 100 kilowatt-hours for lighting, small appliances, and a refrigerator; and 250 kilowatt-hours for the addition of an electric range to the preceding equipment.

The technical specifications which are used as the basis for the application of the rate schedules are:

Floor area (1,000 square feet).

Connected load:	*Watts*
Lighting and appliances	700
Refrigeration	300
Cooking	6,000
Measured demand:	
Lighting and appliances	600
Refrigeration	100
Cooking	2,300

Outlets: Fourteen 50-watt.

Active room count: In accordance with schedule of rates.

Price Changes Between June 15 and September 15, 1937

Rate reductions became effective in 8 of the 51 cities between June 15 and September 15. These cities were:

Bridgeport	Cincinnati
New Haven	Milwaukee
New York (Queens Borough)	Dallas
Pittsburgh	Los Angeles

In only two of these cities, Queens Borough in New York and Dallas, were reductions effective for customers using a maximum of 25 kilowatt-hours, a quantity which provides for lighting and small appliances only. These reductions amounted to 10.1 percent in Queens and 5.0 percent in Dallas. In these two cities, reductions were effective for each of the four services, and were relatively greater than in the other cities. In all of the eight cities, customers using 250 kilowatt-hours, including current for refrigerator and range, benefited from the lowered rates. Monthly costs decreased in five cities for 100 kilowatt-hours, and in three cities for 40 kilowatt-hours. The slight increase for each of the four services for a company serving the Boroughs of Bronx, Brooklyn, Manhattan, and Queens was not due to a revision of rates, but reflects an adjustment under the fuel clause for an advance in prices of fuel.

Changes in net monthly bills and average prices of electricity between June 15 and September 15, 1937, are shown in table 5 for eight cities.

TABLE 5.—*Changes in Retail Prices of Electricity Between June 15 and Sept. 15, 1937—Monthly Bill, Price per Kilowatt-Hour, and Percentage Change*

City and date	Type of ownership [1]	Net monthly bill				Net monthly price per kilowatt-hour			
		25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours	25 kilowatt-hours	40 kilowatt-hours	100 kilowatt-hours	250 kilowatt-hours
		Lighting and small appliances	Lighting and small appliances	Lighting, appliances, and refrigerator	Lighting, appliances, refrigerator, and range	Lighting and small appliances	Lighting and small appliances	Lighting, appliances, and refrigerator	Lighting, appliances, refrigerator, and range
New England:									
Bridgeport:						*Cents*	*Cents*	*Cents*	*Cents*
June 15, 1937	P	$1.31	$2.05	$4.87	$8.90	5.3	5.1	4.9	3.6
Sept. 15, 1937	P	$1.31	$2.05	$4.87	$8.70	5.3	5.1	4.9	3.5
Percentage change [2]					−2.2				
New Haven:									
June 15, 1937	P	$1.31	$2.05	$4.87	$8.90	5.3	5.1	4.9	3.6
Sept. 15, 1937	P	$1.31	$2.05	$4.87	$8.70	5.3	5.1	4.9	3.5
Percentage change [2]					−2.2				
Middle Atlantic:									
New York:									
Company 1: [3]									
June 15, 1937 [4]	P	$1.68	$2.45	$4.79	$8.11	6.7	6.1	4.8	3.2
Sept. 15, 1937 [4]	P	$1.69	$2.46	$4.81	$8.16	6.8	6.1	4.8	3.3
Percentage change [2]		+0.3	+0.3	+0.4	+0.6				
Company 2: [5]									
June 15, 1937 [4]	P	$2.17	$3.26	$6.38	$13.01	8.7	8.2	6.4	5.2
Sept. 15, 1937 [4]	P	$1.95	$3.02	$6.08	$10.67	7.8	7.5	6.1	4.3
Percentage change [2]		−10.1	−7.5	−4.6	−18.0				
Pittsburgh:									
June 15, 1937	P	$1.25	$2.00	$4.00	$8.50	5.0	5.0	4.0	3.4
Sept. 15, 1937	P	$1.25	$2.00	$4.00	$7.50	5.0	5.0	4.0	3.0
Percentage change [2]					−11.8				
East North Central:									
Cincinnati:									
June 15, 1937	P	$1.00	$1.45	$2.65	$5.35	4.0	3.6	2.7	2.1
Sept. 15, 1937	P	$1.00	$1.45	$2.50	$4.75	4.0	3.6	2.5	1.9
Percentage change [2]				−5.7	−11.2				
Milwaukee:									
June 15, 1937	P	$1.41	$1.90	$3.60	$6.48	5.7	4.8	3.6	2.6
Sept. 15, 1937	P	$1.41	$1.90	$3.48	$6.35	5.7	4.8	3.5	2.5
Percentage change [2]				−3.5	−1.9				
West South Central:									
Dallas:									
June 15, 1937	P	$1.25	$2.00	$4.40	$8.20	5.0	5.0	4.4	3.3
Sept. 15, 1937	P	$1.19	$1.90	$4.30	$8.10	4.8	4.8	4.3	3.2
Percentage change [2]		−5.0	−5.0	−2.3	−1.2				
Pacific:									
Los Angeles:									
June 15, 1937	P	$1.10	$1.66	$3.04	$5.27	4.4	4.1	3.0	2.1
Sept. 15, 1937	P	$1.10	$1.65	$2.97	$5.10	4.4	4.1	3.0	2.0
Percentage change [2]			−0.3	−2.1	−3.2				
June 15, 1937	M	$1.10	$1.66	$3.04	$5.27	4.4	4.1	3.0	2.1
Sept. 15, 1937	M	$1.10	$1.65	$2.97	$5.10	4.4	4.1	3.0	2.0
Percentage change [2]			−0.3	−2.1	−3.2				

[1] Type of ownership is indicated as follows: P, private utility; M, municipal plant.

[2] Net monthly bills are computed to mills for purposes of comparison.

[3] Serving Bronx, Brooklyn, Manhattan, and Queens.

[4] Prices include a 2-percent sales tax.

[5] Serving Queens.

GAS PRICES, SEPTEMBER 15, 1937

RESIDENTIAL rates for gas are secured from 50 cities. These rates are used in computing average prices and typical bills for each city for quantities of gas which approximate the average residential consumption requirements for each of four combinations of services. These prices are published quarterly for March, June, September, and December.

In order to put the rate quotations upon a comparable basis it is necessary to convert the normal consumption requirements used for computing monthly bills into an equivalent heating value expressed in therms (1 therm=100,000 B. t. u.). This procedure is necessary because of the wide range in the heating value of a cubic foot of gas between different cities. The equipment and blocks of consumption which have been selected as representative of average conditions throughout the country are based upon the requirements of a five-room house, including living room, dining room, kitchen, and two bedrooms.

These specifications are:	*Therms*
Range	10. 6
Range and manual-type water heater	19. 6
Range and automatic-storage or instantaneous type water heater	30. 6
Range, automatic-storage or instantaneous type water heater, and refrigerator	40. 6

Price Changes Between June 15 and September 15, 1937

Changes in prices of gas for household use between June 15 and September 15 were reported for 3 of the 50 cities. In St. Paul, where a block rate superseded a straight line schedule, monthly bills for 10.6 therms, covering the use of range only, advanced 14.2 percent, while costs of greater amounts of gas for the use of additional equipment showed decreases of from 1.3 percent for 19.6 therms to 11.7 percent for 40.6 therms. Advances of approximately 2 or 3 percent for the other two cities were due to a rate increase in Minneapolis and lower heating value of the gas served in Savannah.

Changes in net monthly bills for gas between June 15 and September 15 are shown in table 6 for these three cities.

TABLE 6.—*Changes in Retail Prices of Gas Between June 15, 1937, and Sept. 15, 1937—Monthly Bills and Prices per Thousand Cubic Feet and per Therm for Specified Amounts of Gas*

Region and city	Kind of gas [1]	Heating value per cubic foot in British thermal units	Monthly consumption in cubic feet and net monthly bill based on specified numbers of therms [2]								Monthly price based on consumption of specified numbers of therms [2]							
			10.6 therms		19.6 therms		30.6 therms		40.6 therms		Per thousand cubic feet for—				Per therm for—			
			Range		Range and manual-type water heater		Range and automatic [3] water heater		Range, automatic [3] water heater, and refrigerator		10.6 therms	19.6 therms	30.6 therms	40.6 therms	10.6 therms	19.6 therms	30.6 therms	40.6 therms
			Cubic feet	Bill	Cubic feet	Bill	Cubic feet	Bill	Cubic feet	Bill	Range	Range and manual-type water heater	Range and automatic [3] water heater	Range, automatic [3] water heater, and refrigerator	Range	Range and manual-type water heater	Range and automatic [3] water heater	Range, automatic [3] water heater, and refrigerator
West North Central:				*Dollars*		*Dollars*		*Dollars*		*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Cents*	*Cents*	*Cents*	*Cents*
Minneapolis:																		
June 15, 1937	X	800	1,330	1.95	2,450	3.07	3,830	4.44	5,080	5.64	1.47	1.25	1.16	1.11	18.4	15.7	14.5	13.9
Sept. 15, 1937	X	800	1,330	1.98	2,450	3.13	3,830	4.54	5,080	5.78	1.49	1.28	1.19	1.14	18.7	16.0	14.8	14.2
Percentage change [4]				+1.4		+2.0		+2.3		+2.5								
St. Paul:																		
June 15, 1937	M	550	1,930	1.74	3,560	3.20	5,560	5.00	7,380	6.64	.90	.90	.90	.90	16.4	16.4	16.4	16.4
Sept. 15, 1937	M	550	1,930	1.98	3,560	3.16	5,560	4.59	7,380	5.87	1.03	.89	.83	.79	18.7	16.1	15.0	14.4
Percentage change [4]				+14.2		−1.3		−8.2		−11.7								
South Atlantic:																		
Savannah:																		
June 15, 1937	M	550	1,930	2.41	3,560	4.45	5,560	6.95	7,380	9.23	1.25	1.25	1.25	1.25	22.7	22.7	22.7	22.7
Sept. 15, 1937	M	535	1,980	2.48	3,660	4.58	5,720	7.15	7,590	9.49	1.25	1.25	1.25	1.25	23.3	23.3	23.3	23.3
Percentage change [4]				+2.6		+2.8		+2.9		+2.9								

[1] Different kinds of gas are indicated as follows: M, manufactured; N, natural; and X, mixed manufactured and natural.

[2] Typical monthly consumption for each service for a 5-room house (1 therm = 100,000 B. t. u.).

[3] Automatic storage or instantaneous water heater.

[4] Net monthly bills are computed to mills for purposes of comparison.

Wholesale Prices

WHOLESALE PRICES IN SEPTEMBER 1937

WHOLESALE commodity prices declined 0.1 percent during September, largely because of sharp decreases in wholesale prices of textile products. Although the decline brought the all-commodity index to 87.4 percent of the 1926 average, it was 7.1 percent above a year ago.

In addition to the textile products group declines were also registered in the farm products, hides and leather products, building materials, chemicals and drugs, and miscellaneous commodity groups. The wholesale foods group rose sharply; increases were also reported for fuel and lighting materials and metals and metal products. Housefurnishing goods remained unchanged at the August level.

Continued decreases in prices of raw materials and semimanufactured articles resulted in the index for each group reaching the lowest point of the year. Finished product prices continued their upward movement which began approximately a year ago.

TABLE 1.—*Comparison of Index Numbers of Wholesale Prices for September 1937 With August 1937 and September 1936*

[1926=100]

Commodity group	September 1937	August 1937	Percent of change from a month ago	September 1936	Percent of change from a year ago
All commodities	87.4	87.5	−0.1	81.6	+7.1
Farm products	85.9	86.4	−.6	84.0	+2.3
Foods	88.0	86.7	+1.5	83.3	+5.6
Hides and leather products	107.6	108.1	−.5	94.6	+13.7
Textile products	75.3	77.1	−2.3	70.9	+6.2
Fuel and lighting materials	78.7	78.4	+.4	76.1	+3.4
Metals and metal products	97.1	97.0	+.1	86.8	+11.9
Building materials	96.2	96.3	−.1	87.1	+10.4
Chemicals and drugs	81.4	82.2	−1.0	81.7	−.4
Housefurnishing goods	91.1	91.1	0	81.7	+11.5
Miscellaneous	77.0	77.3	−.4	71.3	+8.0
Raw materials	84.4	84.8	−.5	81.8	+3.2
Semimanufactured articles	85.3	86.6	−1.5	75.9	+12.4
Finished products	89.1	89.0	+.1	82.3	+8.3
All commodities other than farm products	87.6	87.6	0	80.9	+8.3
All commodities other than farm products and foods	85.9	86.1	−.2	79.6	+7.9

The index for the large group "All commodities other than farm products", measuring the fluctuations in wholesale prices of non-agricultural commodities, remained unchanged at the August level.

According to the index for "All commodities other than farm products and foods" industrial commodity prices declined slightly during the month.

A comparison of the September level of wholesale commodity prices with August 1937 and September 1936 is shown in table 1.

Wholesale Price Level in September

The decrease of 0.1 percent in wholesale commodity prices during September, which was largely due to weakening prices of textile products, placed the all-commodity index at 87.4 percent of the 1926 average. The September index is 1.7 percent above the year's low point of January and 0.7 percent below the high point reached in April.

Besides a decrease of over 2 percent in the textile products group, minor decreases were recorded in the farm products, hides and leather products, building materials, chemicals and drugs, and miscellaneous commodity groups. Foods, fuel and lighting materials, and metals and metal products averaged higher. Housefurnishing goods remained unchanged at the August level.

Compared with their levels of a year ago all groups with the exception of chemicals and drugs are higher. The increases range from 2.3 percent for farm products to 13.7 percent for hides and leather products.

Fluctuations within the major commodity groups which influenced the movement of the all-commodity index during September are shown in table 2.

TABLE 2.—*Number of Items Changing in Price From August to September 1937*

Commodity group	Increases	Decreases	No change
All commodities	111	224	446
Farm products	29	37	1
Foods	40	51	31
Hides and leather products	5	9	27
Textile products	1	59	52
Fuel and lighting materials	10	5	9
Metals and metal products	13	17	100
Building materials	5	21	60
Chemicals and drugs	5	12	72
Housefurnishing goods	0	5	56
Miscellaneous	6	8	38

The index for "All commodities other than farm products", reflecting the movement in prices of nonagricultural commodities, remained unchanged at 87.6 percent of the 1926 average, but was 8.3 percent higher than a year ago. Industrial commodity prices, according to the index for "All commodities other than farm products and foods"—85.9—declined 0.2 percent in September but were 7.9 percent higher than in September a year ago.

Wholesale prices of raw materials fell 0.5 percent to the lowest point reached since November 1936. The September index—84.4—was 3.2 percent above the level of the corresponding month of last year. Although the index for semimanufactured articles declined 1.5 percent during the month to 85.3, it was 12.4 percent higher than that for September of last year. Finished product prices, with an advance of 0.1 percent, continued uninterrupted an upward trend which began in November 1936. The September index—89.1—was 8.3 percent above the corresponding month of last year.

Due to decreases of 6.6 percent in cotton goods, 1.6 percent in woolen and worsted goods, 1.5 percent in silk and rayon and other textile products, and 0.3 percent in clothing, the textile products group index fell 2.3 percent to the low point of the year. Knit goods, on the other hand, advanced 1.2 percent due to higher prices for women's silk hosiery.

Weakening prices for fats, oils, ground bone, and tankage resulted in the chemicals and drugs group index—81.4—falling to the lowest point reached in the past 13 months. Drugs and pharmaceuticals and fertilizer materials averaged fractionally higher.

As a result of decreases of 1.4 percent in livestock and poultry prices and 0.1 percent in grains the farm products group as a whole declined 0.6 percent. Quotations were lower for wheat, hogs, sheep, cotton, hops, peanuts, dried beans, onions, and potatoes. Higher prices were reported for barley, oats, calves, steers, eggs, apples, oranges, hay, fresh milk, and seeds. The September farm products index—85.9—was 2.3 percent higher than a year ago. Wholesale grain prices declined 22.9 percent since April, when they reached a 10-year peak. Livestock and poultry prices, on the other hand, advanced 27.3 percent during the last 12 months.

Sharp declines in prices of hides, skins, and leather caused the hides and leather products group index to fall 0.5 percent. Average wholesale prices for shoes and other leather products, such as harness, advanced slightly.

Cattle feed prices declined 2.1 percent during the month, and paper and pulp decreased 0.7 percent. Crude rubber advanced 0.5 percent.

The building materials group index declined 0.1 percent due to lower prices for floor and wall tile, Douglas fir and Ponderosa pine lumber, turpentine, and prepared roofing. Pronounced price increases were reported for yellow pine lath, chinawood oil, heating boilers, and radiation. Average wholesale prices of cement and structural steel remained firm.

Wholesale food prices, with an increase of 1.5 percent, reached the highest level since October 1930. The advance was largely due to increases of 6.4 percent in dairy products and 1.2 percent in meats. Since February meat prices have advanced 25.6 percent. Individual

food items for which higher prices were reported were butter, cheese, oatmeal, canned cherries and tomatoes, fresh beef, veal, dressed poultry, cured fish, salt, and granulated sugar. Cereal products and fruits and vegetables declined 2.0 percent during the month. Since February the latter subgroup has decreased 27.1 percent. Lower prices were quoted for fresh pork, wheat flour, macaroni, rice, canned and dried apples, raisins, baked beans, canned corn, copra, jelly, raw sugar, edible tallow, and vegetable oils. The current food index—88.0—is 5.6 percent above that for September of last year.

As a result of advancing prices for coal, coke, and petroleum products, the fuel and lighting materials group rose 0.4 percent to the highest point reached in the past 7 years. A seasonal decline was registered in average prices for gas.

Although the metals and metal products group index advanced only 0.1 percent, the rise brought the index—97.1—to the highest point reached since January 1930. The advance was due to higher prices for terneplate, motor vehicles, antimony, and plumbing and heating fixtures. As a result of a sharp decrease in prices of scrap steel, the iron and steel subgroup declined slightly. Minor decreases in prices for electrolytic copper, pig lead, pig tin, quicksilver, and copper and brass manufactures caused the nonferrous metals subgroup to decline 0.8 percent. Average wholesale prices of agricultural implements remained firm.

A fractional decrease in prices of furnishings did not affect the index for the housefurnishing goods group as a whole. It remained at 91.1 percent of the 1926 average.

Index numbers for the groups and subgroups of commodities for August and September 1937 and for September of each year, 1930–36, are shown in table 3.

TABLE 3.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities*

[1926=100]

Group and subgroup	September 1937	August 1937	September 1936	September 1935	September 1934	September 1933	September 1932	September 1931	September 1930
All commodities	87.4	87.5	81.6	80.7	77.6	70.8	65.3	71.2	84.4
Farm products	85.9	86.4	84.0	79.5	73.4	57.0	49.1	60.5	85.3
Grains	91.9	92.0	102.0	83.5	88.1	63.9	37.4	44.2	77.0
Livestock and poultry	106.7	108.2	83.8	92.0	64.1	46.7	51.2	61.0	88.0
Other farm products	71.2	71.4	78.6	70.4	74.4	61.2	52.1	65.4	86.3
Foods	88.0	86.7	83.3	86.1	76.1	64.9	61.8	73.7	89.5
Dairy products	84.8	79.7	89.5	76.0	76.2	65.8	60.6	84.6	99.3
Cereal products	86.1	87.9	87.6	96.8	91.9	84.7	65.8	70.3	78.6
Fruits and vegetables	64.0	65.3	71.5	60.0	66.0	66.8	52.5	71.0	91.0
Meats	113.4	112.1	87.3	102.9	76.6	51.5	60.9	73.6	99.2
Other foods	75.5	73.6	76.7	80.8	70.0	64.5	64.6	68.5	77.6
Hides and leather products	107.6	108.1	94.6	90.9	84.1	92.3	72.2	85.0	99.2
Shoes	107.5	107.4	99.3	98.3	97.9	98.9	84.4	93.5	100.5
Hides and skins	120.7	122.1	93.3	83.8	60.4	84.1	48.2	58.6	94.2
Leather	98.9	100.0	84.2	83.0	70.6	85.4	63.2	83.4	98.2
Other leather products	103.3	103.2	95.4	84.5	86.5	84.6	81.5	101.1	105.4
Textile products	75.3	77.1	70.9	71.8	71.1	76.9	55.6	64.5	76.2
Clothing	89.7	90.0	80.8	80.8	79.7	81.1	61.8	75.5	84.6
Cotton goods	76.8	82.2	80.0	83.2	87.8	91.3	57.9	61.5	78.6
Knit goods	66.5	65.7	60.8	61.6	59.9	74.8	50.4	59.2	76.7
Silk and rayon	32.4	32.9	30.2	32.9	24.3	34.5	32.6	43.5	51.2
Woolen and worsted goods	92.4	93.9	80.9	76.9	78.0	82.7	56.7	65.7	75.9
Other textile products	70.0	71.1	67.1	69.9	69.1	76.5	68.6	74.1	82.0
Fuel and lighting materials	78.7	78.4	76.1	73.0	74.6	70.4	70.8	67.4	79.0
Anthracite	78.7	76.8	80.6	80.6	81.3	82.0	87.7	94.3	89.1
Bituminous coal	99.2	98.7	97.0	96.2	96.3	84.7	81.1	83.9	89.2
Coke	105.0	104.9	93.9	88.6	85.6	79.7	76.7	81.5	83.9
Electricity	(1)	79.4	83.2	87.5	95.2	90.4	103.4	100.6	99.9
Gas	(1)	82.6	87.2	91.9	99.3	101.5	107.6	103.4	101.3
Petroleum products	62.2	62.0	57.5	50.6	51.3	49.6	46.7	38.9	62.0
Metals and metal products	97.1	97.0	86.8	86.6	86.6	82.1	80.1	83.9	89.0
Agricultural implements	94.2	94.2	94.2	93.7	92.0	83.2	84.9	94.1	94.5
Iron and steel	99.8	99.9	88.1	86.8	86.5	80.3	79.7	82.3	87.6
Motor vehicles	96.6	96.0	91.5	94.3	94.7	90.4	92.7	95.4	97.5
Nonferrous metals	92.6	93.3	71.4	68.6	68.4	68.5	51.6	59.0	73.2
Plumbing and heating	80.6	78.8	76.5	71.1	71.6	74.7	66.8	82.6	83.4
Building materials	96.2	96.3	87.1	85.9	85.6	82.7	70.5	77.0	87.1
Brick and tile	95.0	95.5	89.0	88.8	91.3	82.6	75.4	82.6	87.5
Cement	95.5	95.5	95.5	94.9	93.9	90.8	79.0	75.8	91.7
Lumber	99.0	99.5	84.9	82.1	82.3	82.0	56.3	66.9	81.1
Paint and paint materials	84.6	84.1	80.6	80.8	79.5	77.3	68.2	77.6	86.8
Plumbing and heating	80.6	78.8	76.5	71.1	71.6	74.7	66.8	82.6	83.4
Structural steel	114.9	114.9	97.1	92.0	92.0	82.4	81.7	81.7	81.7
Other building materials	100.8	101.0	90.3	90.3	89.8	85.9	79.9	82.6	92.3
Chemicals and drugs	81.4	82.2	81.7	80.2	76.5	72.7	72.9	76.3	87.2
Chemicals	85.7	87.0	88.6	86.9	80.3	78.8	79.8	79.8	91.6
Drugs and pharmaceuticals	78.3	78.2	75.3	73.8	72.7	56.8	56.6	61.7	67.4
Fertilizer materials	71.8	71.7	67.6	67.2	66.4	66.6	63.6	74.2	83.1
Mixed fertilizers	74.8	74.8	69.4	67.8	73.0	67.8	66.9	77.6	92.5
Housefurnishing goods	91.1	91.1	81.7	80.5	81.8	79.3	73.7	82.7	92.3
Furnishings	94.9	95.0	85.4	84.0	84.8	80.5	74.7	81.2	91.2
Furniture	87.1	87.1	78.0	76.9	78.8	78.4	72.7	84.6	93.5
Miscellaneous	77.0	77.3	71.3	67.1	70.2	65.1	64.7	68.2	75.2
Automobile tires and tubes	56.4	56.4	47.5	45.0	44.7	43.2	42.7	46.0	50.1
Cattle feed	81.2	82.9	107.5	67.9	100.7	64.2	45.9	44.4	93.6
Paper and pulp	93.4	94.1	80.7	79.7	82.4	82.2	75.5	80.7	85.1
Rubber, crude	38.4	38.2	34.2	24.0	31.5	14.9	8.2	10.6	17.1
Other miscellaneous	85.1	85.4	81.5	80.0	81.4	78.1	83.2	86.7	92.8
Raw materials	84.4	84.8	81.8	77.3	73.9	61.7	56.2	62.7	82.1
Semimanufactured articles	85.3	86.6	75.9	74.4	71.8	72.9	60.7	66.7	77.7
Finished products	89.1	89.0	82.3	83.1	80.1	74.8	70.4	75.9	86.4
All commodities other than farm products	87.6	87.6	80.9	80.8	78.4	73.7	68.7	73.4	84.2
All commodities other than farm products and foods	85.9	86.1	79.6	77.8	78.3	76.1	70.4	73.9	83.2

[1] Data not yet available.

Index Numbers by Commodity Groups, 1926 to September 1937

Index numbers of wholesale prices by commodity groups, by years from 1926 to 1936, inclusive, and by months from January 1936 to September 1937, inclusive, are shown in table 4.

TABLE 4.—*Index Numbers of Wholesale Prices, by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
By years:											
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.6	75.8	62.5	65.9
1934	65.3	70.5	86.6	72.9	73.3	86.9	86.2	75.9	81.5	69.7	74.9
1935	78.8	83.7	89.6	70.9	73.5	86.4	85.3	80.5	80.6	68.3	80.0
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	80.4	81.7	70.5	80.8
By months:											
1936:											
January	78.2	83.5	97.1	71.7	75.1	86.7	85.7	80.5	81.4	67.8	80.6
February	79.5	83.2	96.1	71.0	76.1	86.7	85.5	80.1	81.5	68.1	80.6
March	76.5	80.1	94.9	70.8	76.2	86.6	85.3	79.3	81.4	68.3	79.6
April	76.9	80.2	94.6	70.2	76.4	86.6	85.7	78.5	81.5	68.6	79.7
May	75.2	78.0	94.0	69.8	76.0	86.3	85.8	77.7	81.5	69.2	78.6
June	78.1	79.9	93.8	69.7	76.1	86.2	85.8	78.0	81.4	69.7	79.2
July	81.3	81.4	93.4	70.5	76.2	86.9	86.7	79.4	81.2	71.0	80.5
August	83.8	83.1	93.6	70.9	76.3	87.1	86.9	79.8	81.4	71.5	81.6
September	84.0	83.3	94.6	70.9	76.1	86.8	87.1	81.7	81.7	71.3	81.6
October	84.0	82.6	95.6	71.6	76.8	86.9	87.3	82.2	82.0	71.5	81.5
November	85.1	83.9	97.0	73.5	76.8	87.9	87.7	82.5	82.3	73.4	82.4
December	88.5	85.5	99.7	76.3	76.5	89.6	89.5	85.3	83.2	74.5	84.2
1937:											
January	91.3	87.1	101.7	77.5	76.6	90.9	91.3	87.7	86.5	76.2	85.9
February	91.4	87.0	102.7	77.5	76.8	91.7	93.3	87.8	87.9	77.3	86.3
March	94.1	87.5	104.2	78.3	76.2	96.0	95.9	87.5	88.4	79.5	87.8
April	92.2	85.5	106.3	79.5	76.8	96.5	96.7	86.9	89.0	81.1	88.0
May	89.8	84.2	106.7	78.7	77.2	95.8	97.2	84.5	89.3	80.5	87.4
June	88.5	84.7	106.4	78.2	77.5	95.9	96.9	83.6	89.5	79.4	87.2
July	89.3	86.2	106.7	78.3	78.1	96.1	96.7	83.9	89.7	79.0	87.9
August	86.4	86.7	108.1	77.1	78.4	97.0	96.3	82.2	91.1	77.3	87.5
September	85.9	88.0	107.6	75.3	78.7	97.1	96.2	81.4	91.1	77.0	87.4

The price trend since 1926 is shown in table 5 for the following groups of commodities: Raw materials, semimanufactured articles, finished products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials", "Semimanufactured articles", and "Finished products" was given in the October 1934 issue of the Wholesale Prices report.

TABLE 5.—*Index Numbers of Wholesale Prices, by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Finished products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0
1927	96.5	94.3	95.0	94.6	94.0
1928	99.1	94.5	95.9	94.8	92.9
1929	97.5	93.9	94.5	93.3	91.6
1930	84.3	81.8	88.0	85.9	85.2
1931	65.6	69.0	77.0	74.6	75.0
1932	55.1	59.3	70.3	68.3	70.2
1933	56.5	65.4	70.5	69.0	71.2
1934	68.6	72.8	78.2	76.9	78.4
1935	77.1	73.6	82.2	80.2	77.9
1936	79.9	75.9	82.0	80.7	79.6
1936:					
January	78.1	74.8	82.4	80.9	78.8
February	79.1	74.6	82.2	80.7	79.0
March	77.4	74.4	81.3	80.2	78.9
April	77.0	74.5	81.6	80.1	78.9
May	75.8	74.1	80.5	79.2	78.8
June	77.6	73.9	80.7	79.4	78.8
1936—Continued.					
July	79.8	75.2	81.6	80.3	79.5
August	81.5	75.6	82.4	80.9	79.7
September	81.8	75.9	82.3	80.9	79.6
October	82.1	76.2	82.0	80.9	80.1
November	83.1	78.6	82.6	81.7	81.0
December	85.6	82.3	83.8	83.1	82.2
1937:					
January	88.1	85.4	84.9	84.6	83.4
February	88.3	85.5	85.4	85.0	84.1
March	90.1	89.6	86.4	86.3	85.5
April	88.7	89.5	87.4	86.9	86.5
May	87.1	87.5	87.5	86.7	86.3
June	86.1	86.8	87.7	86.8	86.1
July	86.5	87.0	88.8	87.5	86.3
August	84.8	86.6	89.0	87.6	86.1
September	84.4	85.3	89.1	87.6	85.9

Weekly Fluctuations

Following a slight recession in early September, wholesale commodity prices turned sharply upward during the weeks ended September 11 and 18, due principally to sharp increases in prices of farm products and foods. The upward movement slackened toward the end of the month and the cumulative gain from August 28 to September 25 amounted to 1.2 percent.

Farm product prices weakened during the first half of September but advanced appreciably during the latter half. An increase of 2.7 percent was recorded during the 4-week period August 28 to September 25. Wholesale food prices rose steadily throughout the month, registering a gain of 4.0 percent from the last week of August to the last week of September. The tendency in prices of fuel and lighting materials and metals and metal products also was higher. Textile product prices fell consistently during September, registering a decline of 2.1 percent during the 4-week period.

The price changes from week to week in hides and leather products, building materials, chemicals and drugs, housefurnishing goods, and miscellaneous commodities were slight and had little effect on the all-commodity index.

Minor weekly price variations in the major commodity groups during September are shown by the index numbers in table 6. The percentage changes from week to week are given in table 7.

TABLE 6.—*Weekly Index Numbers of Wholesale Prices, by Commodity Groups, August and September 1937*

[1926=100]

Commodity group	Sept. 25, 1937	Sept. 18, 1937	Sept. 11, 1937	Sept. 4, 1937	Aug. 28, 1937	Aug. 21, 1937	Aug. 14, 1937	Aug. 7, 1937
All commodities	87.5	87.4	86.8	86.4	86.5	87.3	87.5	87.4
Farm products	87.3	86.5	84.5	84.6	85.0	87.1	87.5	86.9
Foods	88.7	88.6	86.6	85.7	85.3	86.8	86.5	86.3
Hides and leather products	108.3	108.3	108.5	108.6	108.7	108.6	108.6	109.1
Textile products	74.5	75.1	75.5	75.8	76.1	76.6	76.9	77.4
Fuel and lighting materials	79.6	79.4	79.8	79.2	79.1	78.9	78.9	78.9
Metals and metal products	96.4	96.4	96.4	96.4	95.5	95.5	95.5	95.4
Building materials	96.5	96.3	96.4	96.3	96.5	96.4	96.7	96.7
Chemicals and drugs	81.2	81.2	80.9	81.0	81.2	81.7	82.0	82.4
Housefurnishing goods	92.7	92.8	92.8	92.7	92.7	92.7	92.7	92.8
Miscellaneous	77.1	76.9	76.9	76.6	77.0	77.2	77.4	77.4
Raw materials	85.0	84.6	83.4	83.3	83.6	85.0	85.2	84.9
Semimanufactured articles	85.4	85.6	85.7	86.0	86.5	86.6	86.5	86.5
Finished products	89.5	89.4	88.9	88.4	88.3	88.9	89.1	89.1
All commodities other than farm products	87.6	87.6	87.2	86.8	86.8	87.3	87.5	87.5
All commodities other than farm products and foods	85.9	85.9	86.0	85.9	85.8	85.9	86.0	86.0

TABLE 7.—*Weekly Changes (Percent) During September 1937, by Groups of Commodities*

Commodity group	Aug. 28 to Sept. 25	Sept. 18 to Sept. 25	Sept. 11 to Sept. 18	Sept. 4 to Sept. 11	Aug. 28 to Sept. 4
All commodities	+1.2	+0.1	+0.7	+0.5	−0.1
Farm products	+2.7	+.9	+2.4	−.1	−.5
Foods	+4.0	+.1	+2.3	+1.1	+.5
Hides and leather products	−.4	0	−.2	−.1	−.1
Textile products	−2.1	−.8	−.5	−.4	−.4
Fuel and lighting materials	+.6	+.3	−.5	+.8	+.1
Metals and metal products	+.9	0	0	0	+.9
Building materials	0	+.2	−.1	+.1	−.2
Chemicals and drugs	0	0	+.4	−.1	−.2
Housefurnishing goods	0	−.1	0	+.1	0
Miscellaneous	+.1	+.3	0	+.4	−.5
Raw materials	+1.7	+.5	+1.4	+.1	−.4
Semimanufactured articles	−1.3	−.2	−.1	−.3	−.6
Finished products	+1.4	+.1	+.6	+.6	+.1
All commodities other than farm products	+.9	0	+.5	+.5	0
All commodities other than farm products and foods	+.1	0	−.1	+.1	+.1

Individual Commodities

The table showing monthly average wholesale prices and index numbers of individual commodities formerly appearing in the Wholesale Prices pamphlet is now published semiannually instead of monthly. The June 1937 issue showed the average for the year 1936 and information for the first 6 months of 1937. The monthly figures will be furnished upon request.

Recent Publications of Labor Interest

OCTOBER 1937

Consumer Problems

A selected list of government publications of interest to consumers. Washington, U. S. Consumers' Project, March 1937. 14 pp.

Cooperative Movement

The cooperative manager—being the silver jubilee history, 1912–1937, of National Cooperative Managers' Association. By W. Henry Brown. Pocklington (York, England), National Cooperative Managers' Association, Ltd., [1937]. 157 pp.

Retailer cooperatives—how to run them. By Hector Lazo. New York, Harper & Bros., 1937. 248 pp.

Intended for the practical use of independent retailers in setting up wholesale establishments on the cooperative plan.

Statistics of national organizations affiliated to International Cooperative Alliance 1933–1935. London, International Cooperative Alliance, 14 Great Smith Street, Westminster, S. W. 1, 1937. xxiii, 164 pp. (In English, German, and French.)

Statistique des sociétés coopératives, 1935. Sofia, Bulgaria, Direction Générale de la Statistique, 1937. 107 pp. (In Bulgarian and French.)

Manual of accounting procedure for Iowa credit unions. Des Moines, Iowa Credit Union League, 1936. 42 pp.; mimeographed.

Cost and Standards of Living

Condiciones de vida de la familia obrera [Buenos Aires]. Buenos Aires, Departamento Nacional del Trabajo, División de Estadística, 1937. Various paging, charts. (Serie C, No. 2, Investigaciones Especiales.)

A report on cost of living and housing conditions of workers' families in Buenos Aires. The data on food prices and index numbers are from an investigation made in October 1933. Cost of food, clothing, household furniture, housing, etc., in relation to the workers' wages was determined by a study of expenditures throughout 1935 of certain low-income families. A housing inquiry made in 1936 is the source of the more comprehensive data on costs and conditions of working-class housing.

Costs, content or levels and standards of living—a selected bibliography. Compiled by Agnes H. Campbell. New York, Russell Sage Foundation Library, 130 East 22d Street, August 1937. 5 pp. (Bulletin No. 144.)

Interim report on design of a family budget with special reference to food. London, Engineers' Study Group on Economics, Hazlitt House, Chancery Lane, W. C. 2, [1937?]. 48 pp., chart. 2d and rev. ed.

Economic and Social Problems

Our cities, their role in the national economy. Washington, U. S. National Resources Committee, 1937. xiv, 87 pp.; maps, charts, illus.

Reviewed in this issue.

Report to Comptroller of City of New York, on industrial survey of New York City. By Charles E. Murphy. New York, 1936 and 1937. In three parts; various paging.

A discussion of industrial growth in New York City, based on this report, is published in this issue of the Monthly Labor Review.

Studies in social aspects of the depression. New York, Social Science Research Council, 230 Park Avenue, 1937. Bulletins 27 to 39; various paging.

Thirteen monographs by different authors on the social aspects of the depression. Listed in the order of the bulletin numbers, beginning with 27, these studies, the titles of which in each case are introduced by the words "Research memorandum on", are devoted, respectively, to crime, education, the family, internal migration, minority peoples, recreation, religion, rural life, consumption, health, reading habits, relief policies, and social work.

The twilight of American capitalism: An economic interpretation of the New Deal. By A. S. J. Baster. London, P. S. King & Son, Ltd., 1937. 218 pp.

A criticism by an Englishman of American economic policies. The book is based on two main assumptions, one of which is that public policy should aim primarily to maintain a freely competitive economic system, and the other, that American policy has failed to conform to this basic conception and has sought to solve national problems by the restriction of production and the raising of prices.

The Alberta experiment—an interim survey. By C. H. Douglas. London, Eyre and Spottiswoode, 1937. 220 pp.

The author, who originated the idea of "social credit", attributes the failure, up to the present time, of the Alberta experiment to the concerted opposition of the financial interests, combined with mistakes on the part of the Alberta government. More than half of the volume consists of documents, including the text of the Alberta Credit House Act.

Aspects of a changing social structure. By Sir Percy Alden. London, George Allen & Unwin, Ltd., 1937. 190 pp. (Sir Halley Stewart Lecture, 1936.)

Concise and clearly written exposition of some of the more significant aspects of contemporary British social policy. There are sections on society's obligations to children, public health, housing, economic security, and the trend toward the socialization of industry. The problems of the coal industry and of agriculture are given special attention.

British experiments in public ownership and control. A study of the Central Electricity Board, British Broadcasting Corporation, and London Passenger Transport Board. By Terence H. O'Brien. London, George Allen & Unwin, Ltd., 1937. 304 pp.

A contribution to the growing body of literature on the extremely significant development in Great Britain of semiautonomous public bodies for the management of industry. The author deals not so much with the theory of nationalization of industry as with the actual operations of the three administrative bodies selected for study. His conclusions on the whole are favorable.

Economic planning in Australia, 1929–1936. By William Rupert Maclaurin. London, P. S. King & Son, Ltd., 1937. 304 pp.; bibliography.

Reviews Australian experience during the depression, describing the measures taken to restore economic equilibrium and the degree of success attained.

A selected bibliography of books on economic and social planning, 1935–1936. Washington, National Economic and Social Planning Association, [1937?]. 11 pp.

The Labor Party in perspective. By C. R. Attlee. London, Victor Gollancz, Ltd., 1937. 287 pp.

Presents a brief outline of the historical background and development, form of organization, and methods of procedure of the British Labor Party, and discusses programs and policies which another Labor Government in Great Britain would presumably follow. The author is the present leader of the Labor Party representation in Parliament.

Does Norwegian labor seek the middle way? By Finn Moe. (In New Frontiers, League for Industrial Democracy, 112 East Nineteenth Street, New York, April 1937, 40 pp.)

Deals with social developments and economic recovery in Norway, including labor and cooperative movements as important factors.

Employment and Unemployment

Age and industry of gainful workers [in Michigan]. Lansing, State Emergency Welfare Relief Commission, 1937. 16 pp., map. (Michigan Census of Population and Unemployment, first series, No. 9.)

Classifies 1,398,678 employed and 314,415 unemployed workers in selected industries in Michigan, by age groups, by sex, by localities, and for the State as a whole.

*The story of the 680,712, being an account, in statistical form, of citizenship, nativity, age, sex, marital status, ability to read or write English, and number of gainful workers, by occupation and industry, of population of Rhode Island, * * * obtained in decennial census, January 1936.* Providence, Department of Labor, [1937?]. 194 pp., charts.

Some of the results of this enumeration of the employed and unemployed are given in this issue of the Monthly Labor Review.

Inventory of active file of applicants, Wisconsin State Employment Service, April 1, 1937—place of residence, occupation, sex, and certification status of applicants. Madison, Industrial Commission of Wisconsin, Employment Service, 1937. Various paging; mimeographed.

Data are presented by counties and cities.

Papers and proceedings of fifteenth annual conference of Pacific Coast Economic Association, at University of Oregon, Eugene, December 1936. Stanford University, Calif., Stanford University Press, 1937. 68 pp.

Includes an article on seasonal employment with special reference to unemployment compensation.

The problem of unemployment: Legislation proposed to remedy unemployment. By Francisco Ducassi Mendieta; translated by R. Hart Phillips. Habana, Talleres Tipograficos de Cultural, S. A., 1937. 78 pp.

The author proposes as a plan to eliminate unemployment, as far as possible, that a supreme international council be created to fix the standard number of working hours requisite to equalize world production and consumption. He also advocates reciprocal tariff agreements, and study of production in the signatory countries, by the council, which would have authority to enforce the agreements reached.

Farm Labor and Farm Tenancy

Seasonal agricultural labor in the Yakima Valley. By Paul H. Landis. Washington, U. S. Bureau of Labor Statistics, 1937. 11 pp. (Serial No. R. 610, reprint from August 1937 Monthly Labor Review.)

Farm tenancy in Tennessee. By Charles E. Allred and others. Knoxville, University of Tennessee, Agricultural Experiment Station, 1936. 31 pp., maps, charts; mimeographed.

Analyzes the farm-tenant situation, showing its relation to relief, the living conditions of tenant families, and their distribution geographically, by race and by type of tenancy.

Farm tenancy in United States, 1918–1936: A selected list of references. Compiled by Louise O. Bercaw. Washington, U. S. Bureau of Agricultural Economics, June 1937. 302 pp.; mimeographed. (Agricultural Economics Bibliography No. 70; supersedes No. 59.)

Governmental Activities

The Book of the States, Vol. II. Chicago, Council of State Governments, Drexel Avenue and 58th Street, 1937. Book 1, 400 pp., illus.; Book 2, 211 pp.

Book 1 of this 1937 edition of the Book of the States deals with intergovernmental cooperation, and contains a brief history and a record of activities in that field during the past 2 years (1935–37). Organizations of governmental agencies and associations active in public work are listed, with officers and addresses, and described briefly in regard to membership, activities, and official publications. A handbook of State governments is included, furnishing a directory of State officials and members of State legislatures in 1937, with references to information and research facilities offered through official channels.

Book 2 is a transcript of the proceedings of interstate conferences held during the period 1935 to 1937. One of these was the conference of the Interstate Commission on Social Security, held at Atlantic City, June 26 and 27, 1936.

Health and Industrial Hygiene

Research memorandum on social aspects of health in the depression. By Selwyn D. Collins and Clark Tibbitts. New York, Social Science Research Council, 230 Park Avenue, 1937. 192 pp. (Studies in social aspects of the depression; Bulletin 36.)

The report is divided into three main chapters, covering health conditions, the environment factor, and the prevention and treatment of illness. Studies of these matters are discussed from the standpoint of their findings, and suggestions are offered for research in various phases of the health problem.

Sickness among male industrial employees during final quarter of 1936 and the year as a whole. By Dean K. Brundage. Washington, U. S. Public Health Service, 1937. 3 pp. (Reprint No. 1818 from Public Health Reports, Apr. 30, 1937.)

Covers the frequency of sickness and nonindustrial accidents causing disability of 8 days or longer, in a group of male industrial employees, during 1936.

Mortality among southern Negroes since 1920, with comparative data for southern whites and northern Negroes. By Mary Gover. Washington, U. S. Public Health Service, 1937. 52 pp., charts. (Public Health Bulletin No. 235.)

It was found that in 10 Southern States, during the period from 1922 to 1932, mortality rates for all ages declined 2.5 percent among colored and 7.7 percent among white persons. Each age group under 30 among colored and under 45 among white also showed a decline in the rate, but over those ages the recorded mortality increased, the percentage of increase being greater for the colored race.

The need for industrial hygiene courses in public health curricula. By J. J. Bloomfield and R. R. Sayers. Washington, U. S. Public Health Service, 1937. 4 pp. (Reprint No. 1833 from Public Health Reports, June 18, 1937.)

Seventeenth annual report of Industrial Health Research Board [Great Britain], to June 30, 1937. London, 1937. 38 pp.

Discusses briefly the investigations carried out by the Board during the year on environmental conditions, physiology and psychology of work, accidents and occupational fitness, and occupational sickness.

Daylight illumination necessary for clerical work. By L. H. McDermott. London, Department of Scientific and Industrial Research, 1937. 14 pp., diagrams, illus. (Illumination Research Technical Paper No. 19.)

This study, made with 17 individuals used as subjects, showed that the average minimum degree of daylight illumination required for clerical workers is about 5 foot-candles.

Noise. By A. H. Davis. London, Watts & Co., 1937. 148 pp., charts, illus.

The author, who is connected with the British National Physical Laboratory, discusses the effects of noise, its measurement, methods of reduction or absorption, and methods of control where exclusion of sound is not necessary or possible. A bibliography of English publications on the subject is added.

Ventilation of factories and workshops. London, Home Office, 1937. 52 pp., diagrams, illus.; 3d ed. (Welfare Pamphlet No. 5.)

Protection against mine gases. By J. J. Forbes and G. W. Grove. Washington, U. S. Bureau of Mines, 1937. 52 pp., illus. (Miners' Circular 35.)

Review of literature on effects of breathing dusts, with special reference to silicosis. By D. Harrington and Sara J. Davenport. Washington, U. S. Bureau of Mines, 1937. 305 pp.; bibliography. (Bulletin No. 400.)

Reviews reports and other writings relating to the effects of dust inhalation, particularly in mining and allied industries, covering the physiological effects of breathing dust, prevention of dust diseases, and the economic and legal aspects of the dust-disease problem.

Health Insurance

Die krankenversicherung 1934, mit vorläufigen ergebnissen für das jahr 1935. Berlin, Statistiches Reichsamt, 1936. 115 pp.

Report on operation of the sickness-insurance system in Germany during 1934, with preliminary data for 1935, and a short history of the organization during the 50 years of its existence.

Housing

British and American housing. By Richard L. Reiss. New York, National Public Housing Conference, Inc., 112 East Nineteenth Street, 1937. 110 pp.

Compares tax methods in Great Britain and the United States, gives a historical account of British housing legislation and its results, and states the problem existing in the United States at present. A brief bibliography is appended.

Studies of community planning in terms of the span of life. By Catharine F. Lansing. New York, New York City Housing Authority, 1937. 43 pp., charts.

An article on housing in relation to population needs, based on this study, is published in this issue of the Monthly Labor Review.

Toward the end to be achieved: The New York City Housing Authority, its history in outline. New York, New York City Housing Authority, 1937. 19 pp.

The working class home: Its furnishing and equipment. London, Council for Art and Industry, 1937. 64 pp., illus.

Detailed suggestions on furnishings and costs.

Immigration and Naturalization

Immigration and naturalization, with special reference to United States of America. By Henry B. Hazard. Washington, American University Graduate School, 1901 F Street NW., 1937. 22 pp. (International Law and Relations, Vol. VI, No. 13.)

An outline of the development in this country of immigration and naturalization law and policy.

The families of aliens—a study of their citizenship status. By Melvin M. Fagen. New York, National Council on Naturalization and Citizenship, 1133 Park Avenue, 1937. 15 pp.

Of the 4,853 aliens reporting naturalization status, 34.1 percent had applied for first papers and 32.2 percent for second papers; 33.1 percent had made no application for papers.

Citizenship and naturalization activities in United States. [Springfield?], Illinois State Committee on Citizenship and Naturalization, [1937?]. 145 pp.; bibliography.

Report of a national survey to secure data on which to base an adequate citizenship and naturalization program for Illinois.

New Americans in Allegheny County—a cultural study. By Mary E. Hurlbutt. New York, New York School of Social Work, 122 East Twenty-second Street, 1937. 114 pp.

Reproduced from material constituting part of a study to be published in the fall of 1937 under the title "Greater Pittsburgh, the community and social work", by Philip Klein and collaborators. These data, issued in advance of the more comprehensive report, include information on population trends, Americanization, nationality communities, citizenship training, and naturalization, in Allegheny County, Pennsylvania. The program of international institutes (Y. W. C. A. service bureaus for immigrant girls, etc.) is also presented.

Income

Monthly indexes of nonagricultural and national income. Statistical supplement to "Nonagricultural income as a measure of domestic demand." Washington, U. S. Agricultural Adjustment Administration, August 1937. 9 pp.

This supplement revises earlier monthly estimates by the Agricultural Adjustment Administration to conform to annual estimates of the Department of Commerce, and gives monthly figures to June 1937.

Industrial Accidents and Safety

Report to Minister of Transport upon accidents which occurred on railways of Great Britain during the year 1936. London, Ministry of Transport, 1937. 53 pp. (Cmd. 5477.)

The report shows that 382 fatalities and 25,744 injuries resulted from train, movement, and nonmovement accidents during 1936, as against 391 fatalities

and 23,220 injuries in 1935. Employees of the railways and contractors were involved in 246 fatalities and 16,620 injuries in 1936, as compared with 211 fatalities and 15,277 injuries to the same group in 1935. Accidents occurring in 1936 to employees of railways owned by the dock and harbor authorities are shown to have resulted in 3 fatalities and 32 injuries.

Fifteenth annual report of Safety in Mines Research Board, including report of matters dealt with by Health Advisory Committee [Great Britain], 1936. London, 1937. 130 pp., illus.

Summarizes the work of the Board during 1936 covering safety instruction, and safety and health studies.

Suggested procedure for conducting first-aid and mine rescue contests. By G. W. Grove. Washington, U. S. Bureau of Mines, 1937. 51 pp., diagrams. (Technical Paper 579.)

Industrial Relations

Expressing the sense of Congress on so-called sit-down strikes and the industrial spy system. Report from the Committee on Labor, U. S. House of Representatives, to accompany S. Con. Res. 7, 75th Congress, 1st session. Washington, 1937. 11 pp. (Report No. 624.)

Sit-down strikes—a reading list. Compiled by George E. Pettengill. (In New York Public Library Bulletin, June 1937, pp. 480–484.)

Sympathetic strikes—a bibliography. Compiled by Estelle Murasken and Rosa Deutsch. Washington, U. S. Works Progress Administration, 1937. Various paging; mimeographed.

The labor boycott—a bibliography. Compiled by Delia Randall and Jesse Prussin. Washington, U. S. Works Progress Administration, 1936. Various paging; mimeographed.

Picketing in labor disputes—a bibliography. Compiled by Estelle Murasken, Rosa Deutsch, and Alexander Kramer. Washington, U. S. Works Progress Administration, 1937. Various paging; mimeographed.

Report of Anthracite Board of Conciliation. Hazleton, Pa., 1937. 417 pp. (Vol. XXIII.)

Record of cases considered by the Board since 1934, showing for each case the nature of the grievance and the decision rendered.

Labor Relations Board's decisions, 1935–1937, against employers, regarding representation and elections. Washington, Chamber of Commerce of the United States, Department of Manufacture, 1937. 33 pp.

Towards industrial peace in Australia. By Orwell de R. Foenander. Melbourne, Melbourne University Press, 1937. 292 pp.

A series of essays covering the history of the Commonwealth Court of Conciliation and Arbitration, touching on economic and legal as well as historical aspects of its operations.

Répertoire chronologique des sentences surarbitrales rendues du 19 janvier au 8 avril 1937 en exécution de la loi du 31 décembre 1936 et du décret du 16 janvier 1937. Paris, Présidence du Conseil; in annexe au Journal Officiel de la République Française, Paris, September 3, 1937, pp. 619–687.

Decisions rendered between January 19 and April 8, 1937, in the arbitration of industrial disputes in France under the law of December 31, 1936, and the decree of January 16, 1937.

Addresses on industrial relations, 1936. Ann Arbor, University of Michigan, Bureau of Industrial Relations, [1937?]. 51 pp.

The subjects of the papers included unemployment compensation and various aspects of the Social Security Act and of industrial relations.

International Labor Conditions

Results of International Labor Conference, June 1937. By W. Ellison Chalmers. Washington, U. S. Bureau of Labor Statistics, 1937. 12 pp. (Serial No. R. 613, reprint from August 1937 Monthly Labor Review.)

The I. L. O. year-book, 1936–37. Geneva, International Labor Office (American branch, 734 Jackson Place, Washington, D. C.), 1937. 607 pp.

The material is presented under the following general heads: Economic developments; conditions of work (hours, holidays, industrial medicine, accident prevention, women's work, protection of children and young persons, factory inspection); social insurance; remuneration of labor; employment, unemployment, migration; workers' living conditions; workers' general rights (right to organize, collective bargaining, conciliation and arbitration, etc.); special problems of certain categories of workers (salaried, professional, agricultural, home workers, seamen, native, prison). An appendix contains information concerning the structure of the International Labor Organization and statistics of membership, etc., of international and national federations of trade unions.

Year-book of labor statistics, 1937. Geneva, International Labor Office (American branch, 734 Jackson Place, Washington, D. C.), 1937. 237 pp. (In English and French.)

Covers population, employment and unemployment, hours of work, wages, cost of living and retail prices, workers' family budgets, migration, industrial relations, and economic statistics (including index numbers of production and wholesale prices).

World economic survey, 1936–37. Geneva, League of Nations, Economic Intelligence Service (United States agents, Columbia University Press, New York City), 1937. 261 pp.

Chapters are devoted to rising price levels and the improvement of labor conditions, the latter treating of employment, unemployment, and the movement for higher wages, with statistics on these matters, and the widening scope of labor legislation. There is a chronological list of economic events in 1936.

Labor Legislation

Digest of State and Federal labor legislation enacted September 15, 1936, to July 1, 1937. Washington, U. S. Division of Labor Standards, 1937. 124 pp. (Bulletin No. 15.)

Child-welfare legislation, 1936. Washington, U. S. Children's Bureau, 1937. 35 pp.; mimeographed.

Summary of 1937 labor laws for women. Washington, U. S. Women's Bureau, July 15, 1937. 4 pp.

Labor relations law: Wagner Labor Act—commentary, regulations, U. S. Supreme Court decisions. [New York, Commerce Clearing House, Inc., Empire State Building?], 1937. 76 pp.

Picketing provisions of Wisconsin Labor Code upheld. Washington, U. S. Bureau of Labor Statistics, 1937. 4 pp. (Serial No. R. 600, reprint from July 1937 Monthly Labor Review.)

The Wisconsin Labor Relations Act—a guide to its understanding. By Nathan P. Feinsinger and William Gorham Rice, Jr. Madison, Wis., 1937. 78 pp. (Bulletin of University of Wisconsin, Serial No. 2254, General Series No. 2038.)

Contains the text of the act, a review of its history and background, a topical analysis of its provisions, and a series of questions and answers covering procedures and rights and duties of employers, employees, and labor organizations with reference to the act.

Labor legislation in Canada, 1936. Ottawa, Department of Labor, 1937. xiii, 176 pp.

A brief review of Dominion labor legislation in 1936 was published in the September 1936 issue of the Monthly Labor Review (p. 618).

Indian labor legislation, 1932–37, with special reference to recommendations of Royal Commission on Labor in India. Delhi, [Department of Industries and Labor?], 1937. 57 pp. (Bulletin of Indian Industries and Labor, No. 61.)

The new Turkish Labor Code. By Oscar Weigert. (In International Labor Review, Geneva, Switzerland, June 1937, pp. 753–774; also reprinted.)

Analyzes the main provisions of the code with special reference to the effects which it may have on economic and social conditions. A digest of the code was also published in the Monthly Labor Review for March 1937 (p. 639).

Fifth report to [Massachusetts] general court of Commission on Interstate Compacts affecting Labor and Industries. Boston, 1937. 81 pp. (House Doc. No. 1601.)

Reviews the present status in New England and other parts of the United States of the movement for interstate cooperation to secure uniformity in legislation and administrative methods dealing with labor and industry. Recommendations include one for the continuance of the Massachusetts commission and the expansion of its efforts in that field; and a suggested memorial to Congress requesting Federal legislation applying the principle of the Hawes-Cooper Act (convict labor) to labor standards in general. Statistical data presented in an appendix deal with industries and industrial development in Massachusetts and in its chief competitor States in the period 1919–33.

Legislative councils. By Bryant Putney. Washington, 1937. 16 pp. (Editorial Research Reports, Vol. 2, No. 6.)

In an effort to improve and modernize legislative methods, legislative councils have been established in eight States (Connecticut, Illinois, Kansas, Kentucky, Michigan, Nebraska, Virginia, Wisconsin). This pamphlet reviews their organization and work and the events leading to their establishment, and discusses other devices which have been utilized to aid the legislative process.

Labor Organizations

The activities of the International Federation of Trade Unions, 1933–1935. Paris, International Federation of Trade Unions, 9 Avenue d'Orsay, 1937. 485 pp.

In addition to the report of the federation's activities during the 3-year period 1933–35, the volume contains reports from the affiliated national centers and international trade-union federations for the same period, and the proceedings of the Congress of the International Federation of Trade Unions and the International Conference of Women Trade Unionists, both held in London in July 1936.

Thirty-sixth annual directory of labor organizations in Massachusetts, 1937, with statistics of membership, 1932–1936. Boston, Massachusetts Department of Labor and Industries, 1937. 77 pp. (Labor Bulletin No. 176.)

Laundry Industry

Consider the laundry workers. By Jane Filley and Therese Mitchell. New York, League of Women Shoppers, 220 Fifth Avenue, 1937. 64 pp., illus.

Report of a survey of selected laundries in New York City, made by investigators from the League of Women Shoppers, covering working conditions in the laundry industry and living standards and social status of individual laundry workers. Emphasis is placed upon the effects of working conditions upon laundry users as well as workers, and upon the consumer's opportunity to improve working conditions and industrial relations.

Leather-Footwear Industry

Leather footwear—world production and international trade. By J. G. Schnitzer. Washington, U. S. Bureau of Foreign and Domestic Commerce, 1937. 181 pp., map, illus. (Trade Promotion Series No. 168.)

For some of the countries surveyed, data are given on employment, wages, and working hours in the industry.

Migration

Research memorandum on internal migration in the depression. By Warren S. Thompson. New York, Social Science Research Council, 230 Park Avenue, 1937. 86 pp.; bibliography. (Studies in social aspects of the depression; Bulletin 30.)

The movement of workers from farms to cities and from cities to farms in recent years is emphasized in this booklet, although other types of migration are also mentioned. The author, a population expert, believes that we are not going to be able to direct migration effectively until we know a great deal more than at present. Accordingly, numerous suggestions for further research are given, including suggestions for field studies and for improvement of census statistics.

Minimum Wage

Minimum-wage legislation in United States, as of July 1, 1937. Washington, U. S. Bureau of Labor Statistics, 1937. 13 pp. (Serial No. R. 615, reprint from August 1937 Monthly Labor Review.)

Mining Industry

Anthracite region: Tons of coal mined, days worked, persons employed, killed and injured, explosives used, and man-days, 1936. Harrisburg, Pennsylvania Department of Mines, [1937?]. 15 pp.; mimeographed.

The statistics are shown by mining company and by individual mine.

Bootlegging or illegal mining of anthracite coal in Pennsylvania—a census and survey of the facts. [Philadelphia], Pennsylvania Anthracite Coal Industry Commission, [Integrity Building], 1937. 84 pp., maps.

Employment and related statistics of mines and quarries, 1935: Coal. Washington, U. S. Works Progress Administration, 1937. 133 pp. (National Research Project, Mineral Technology and Output-per-Man Studies, Report No. E–4.)

A census of the coal-mining industry, showing number of mines, production, and employment, for bituminous and anthracite mining separately. Material for 1935 is supplemented by that for earlier periods, and certain United States Bureau of Mines statistics are included.

Fifty-fifth coal report of Illinois, 1936. Springfield, Department of Mines and Minerals, 1937. 291 pp.

Statistics of employment, labor productivity, and accidents are included in this summary of mining operations in 1936.

Annual report of Minister of Mines, British Columbia, for year ended December 31, 1936. Victoria, 1937. Various paging.

Includes statistics on production, employment, and accidents to workers in the mining industry of the Province.

Occupations

Analyses of special jobs in quality milk production: Procedure and practices for quality milk production on farms. Washington, U. S. Office of Education, 1937. 15 pp. (Vocational Education Bulletin No. 154, Agricultural Series No. 40; revised 1937.)

Students and occupations. By E. G. Williamson. New York, Henry Holt & Co., 1937. xxiv, 437 pp. (American General Education Series.)

In the first part of the book the importance of the nonvocational values of general education is emphasized and the psychological problems involved in the selection of a vocation are discussed. One chapter deals with the scope and types of the occupations of today, and employment trends. The remainder of the volume surveys various occupational fields. Every chapter except the first is followed by a list of references and suggestions for reading.

Old-Age Pensions

Railroad Retirement Act of 1937. Washington, U. S. Bureau of Labor Statistics, 1937. 3 pp. (Serial No. R. 614, reprint from August 1937 Monthly Labor Review.)

Personnel Management

Individual diagnosis: A manual for the employment office. By N. W. Morton. Montreal, McGill University, 1937. 123 pp. (McGill Social Research Series, No. 6.)

Analyzes the purpose of individual diagnosis, discusses aids to vocational interviews, and evaluates various tests and rating methods.

The psychology of selecting employees. By Donald A. Laird. New York and London, McGraw-Hill Book Co., Inc., 1937. 316 pp., diagrams, illus.

Formulates principles of scientific methods to be followed in selecting workers for various occupations.

Supplement to management bibliography [*issued in 1931*], *covering 1931–1935.* Compiled by R. M. Berg. New York, American Society of Mechanical Engineers, 29 West Thirty-ninth Street, 1937. 88 pp.

Accident prevention, health, fatigue, noise elimination, incentives, industrial relations, job analysis and standardization, wages, pensions, vacations, and training are among the topics covered.

Prices

Wholesale prices in Philadelphia, 1784–1861: Part II, Series of relative monthly prices. By Anne Bezanson, Robert D. Gray, and Miriam Hussey. Philadelphia, University of Pennsylvania Press, 1937. 271 pp., charts; bibliography. (University of Pennsylvania, Wharton School of Finance and Commerce, Research Studies XXX.)

Index numbers of wholesale prices are shown for important items, by years, from 1784 to 1861. The base used is the average price from 1821 to 1825, inclusive.

World prices and the building industry; index numbers of prices of 40 basic commodities for 14 countries in currency and in gold, and material on the building industry. By George F. Warren and Frank A. Pearson. New York, John Wiley & Sons, Inc., 1937. 240 pp., charts.

Mainly statistical, but the authors attempt to interpret the data. They hold that depressions are brought about by rapidly falling prices, but are accentuated when falling prices coincide with the declining phase of the building cycle. Suggestions are made regarding public-works programs as a means of moderating the violence of the building cycle and of depressions.

Prison Labor

The prison labor problem in Utah. Washington, U. S. Prison Industries Reorganization Administration, 1937. 43 pp.; mimeographed.

Recreation

Proceedings of Twenty-second National Recreation Congress. New York, National Recreation Association, 315 Fourth Avenue, 1937. 151 pp.

In addition to addresses on various phases of the recreation movement, summaries are given of the group discussions.

Research memorandum on recreation in the depression. By Jesse F. Steiner. New York, Social Science Research Council, 230 Park Avenue, 1937. 124 pp. (Studies in Social Aspects of the Depression; Bulletin 32.)

Reviews developments in various fields of recreation and the changes brought about by the depression, and suggests problems which would be suitable topics for thorough study and research.

Relief Measures and Statistics

Report on direct relief in New Hampshire, January 1, 1935–December 31, 1936. Concord, State Board of Welfare and Relief, 1937. 71 pp.

Interim report of National Employment Commission, Canada, June 1, 1936, to June 30, 1937. Ottawa, 1937. 49 pp.

In this report covering the first year of its existence, the commission describes its activities in securing data, recommends practical measures for increasing employment and insuring efficiency and economy in administration of relief, and discusses the formation of machinery to carry out its policies.

Resettlement

A Federal resettlement project, Granger Homesteads. By Raymond P. Duggan. Washington, Catholic University of America, School of Social Work, 1937. 183 pp., charts, illus.

After an appraisal of the status of the coal industry in Iowa, in the vicinity of which the project is located, the development of the plan is described and the economic and social position of occupant families analyzed.

An analysis of methods and criteria used in selecting families for colonization projects. By John B. Holt. Washington, U. S. Farm Security Administration and Bureau of Agricultural Economics, 1937. 54 pp. (Social Research Report No. 1.)

Social Security

The evaluation of permanent incapacity for work in social insurance. Geneva International Labor Office (American branch, 734 Jackson Place, Washington, D. C.), 1937. xvi, 375 pp. (Studies and Reports, Series M, No. 14.)

Compares and analyzes the methods used under workmen's-compensation and invalidity-insurance systems in various countries in evaluating incapacity for work. No attempt is made to deal with all the problems involved, attention being confined to those which are considered fundamental.

Report on the British social services. London, Political and Economic Planning, 16 Queen Anne's Gate, 1937. 210 pp., charts.

A survey of existing public social services in Great Britain, with suggestions for future development, covering such questions as education, public health, welfare of the blind, employment service, social insurance (health insurance, unemployment insurance, the contributory pensions scheme, workmen's compensation), and social assistance, including noncontributory old-age pensions, unemployment assistance, and public assistance.

The social services—a historical survey. By W. Hardy Wickwar. London, Cobden-Sanderson, 1936. 268 pp.

Listing as social services British government activities in the fields of poor relief, education, public health, and social insurance, this book reviews their historical and political backgrounds, and presents the author's views upon some of their effects and inadequacies, and upon the administrative practices involved. A reference list classified by subjects is included.

Dieci anni di economia fascista, 1926–1935: La formazione dell'economia corporativa. Milan, Universitá Commerciale Luigi Bocconi, 1937. 577 pp. (Annali di Economia, Vol. XII.)

This comprehensive survey of developments under the fascist regime in Italy has a chapter on social insurance which discusses its theoretical and actuarial basis as illustrated by the system of Italy, reviews the history of Italian social insurance, and gives yearly statistics of compulsory invalidity and old-age insurance, survivors' benefits, maternity aid, unemployment insurance, and compulsory tuberculosis insurance, through 1934.

El Instituto Nacional de Previsión [Spain] protege y asegura a los trabajadores. [Valencia?], Ministerio de Trabajo y Assistenza Social, 1937. Various paging.

A series of pictorial and statistical charts prepared by the National Welfare Institute of Spain for the Paris Exposition, showing the functioning of the Institute in protecting and insuring workers against old age, accidents, and unemployment, administering maternity benefits, and fostering pupils' cooperatives. The manner of investment of the Institute's funds is also shown. (In Spanish with French explanatory text on plates reproducing exhibits.)

Insurance and annuity plans for college staffs. By Sherman E. Flanagan. Washington, U. S. Office of Education, 1937. 83 pp. (Bulletin, 1937, No. 5.)

Various insurance and annuity plans suitable for college staffs are described and compared, and the extent to which these systems are in force is shown. The concluding chapter presents fundamental principles of a comprehensive program of insurance and annuities for the staffs of educational institutions.

Unemployment insurance and old-age benefits [pay-roll taxes]. New York, Commerce Clearing House, Inc., Empire State Bldg., 1937. 183 pp.

Designed as an aid to employers in the maintenance of proper records and in filing reports under the Federal law on unemployment insurance and old-age benefits and under the State unemployment-insurance laws. Pay-roll tax regulations are given, illustrations of how pay-roll records may be set up, and other information essential to employers in conforming with the provisions of the laws, together with the text of the Federal Social Security Act.

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The actuarial aspect of unemployment insurance—British experience. By Arthur Hallam Reede. State College, Pa., 1936. 31 pp.; bibliography. (Pennsylvania State College Studies, Vol. 1, No. 1.)

The author uses the British experience with unemployment insurance, since it is comparatively lengthy, as the basis for a discussion as to whether unemployment insurance can be established on an actuarial basis. He concludes that the operation of the British system does not provide a definite answer to the question, but that it does indicate pitfalls to be avoided in our own experience with social-security systems.

Textile Industry

Effects of mechanical changes in cotton-textile industry, 1910 to 1936. By Boris Stern. Washington, U. S. Bureau of Labor Statistics, 1937. 26 pp., illus. (Serial No. R. 612, reprint from August 1937 Monthly Labor Review.)

Training

Training for industry. New York, National Industrial Conference Board, Inc., 247 Park Avenue, 1937. 29 pp. (Study No. 237.)

Training for public service—a bibliography. Compiled by Dorothy Campbell Culver. Berkeley, University of California, Bureau of Public Administration, May 15, 1937. 48 pp.

Lists English-language materials on training in this country and in Europe; on the work in this connection of specified educational institutions; and on training for specific types of public service.

Wages and Hours

Comparative labor standards in transportation. Washington, Federal Coordinator of Transportation, 1937. 147 pp., charts.

Excerpts from this report, relating to hours and earnings, are given in this issue.

New fashions in wage theory: Keynes–Robinson–Hicks–Rueff. By Jürgen Kuczynski. London, Lawrence and Wishart, 1937. 99 pp.

The first half only of this book is devoted to criticism of the wage theories of Keynes, Robinson, Hicks, and Rueff. The second half, entitled "Statistical Essays", makes contributions to several important fields of statistical work. Chapter 4, "A study of wage averages within a capitalist organism", attempts to measure wage changes in British-controlled textile factories in India as well as in Great Britain. Chapter 5 discusses wage changes in the light of changes in the intensity of work. Chapter 6 appraises productivity and "unproductivity" in manufacturing in the United States by considering the unemployed as well as the employed in connection with measures of labor productivity. Chapter 7 is a study of the relation between unemployment and the death rate, especially in England. The eighth and final chapter is devoted to the problem of measuring changes in the cost of living.

Welfare Work

Miners' Welfare Fund: Fifteenth annual report of Miners' Welfare Committee, for the year 1936. London, 1937. 113 pp., illus.

Data in the report dealing with bath accommodations at mines are summarized in this issue of the Monthly Labor Review. Other functions of the Miners' Welfare Fund, including education, recreation, research, and the granting of scholarships to miners and their children, are covered in the report.

General Reports

Annual report of Commission of Labor and Industry (Labor Department), Kansas, for the year ending December 31, 1936. Topeka, 1937. 77 pp., folders.

Gives data on employment, payrolls, employment service, industrial accidents, factory and mine inspection, women's working conditions, and retail prices. There is also a directory of the labor organizations in Kansas.

Censo industrial de 1935 [*Argentina*]: *Resultados generales* (*cifras provisionales*). Fasciculo No. 2. Buenos Aires, Ministerio de Agricultura, Comisión Nacional del Censo Industrial, 1937. 69 pp.

Preliminary figures on persons employed, wages, and hours, in Argentine industry, as revealed by the industrial census taken in 1935.

Investigaciones sociales [*Argentina*]: *Sintesis de los resultados obtenidos en 1936.* Buenos Aires, Departamento Nacional del Trabajo, Division de Estadística, [1937]. 16 pp., charts; mimeographed.

A summary of the social investigations carried out up to the end of 1936 by the National Department of Labor of Argentina with respect to union organization, strikes, living conditions of workers' families, industrial census, occupational census, and industrial accidents.

Annuaire statistique de la Belgique et du Congo Belge, 1937. Bruxelles, Ministère de l'Intérieur, Office Central de Statistique, 1937. Various paging.

There are no labor statistics in the small section devoted to the Belgian Congo, but for Belgium there are data on accidents in mines and quarries and on railroads, strikes and lockouts, employment, employment service, wholesale and retail price indexes, family allowances and other forms of social insurance, housing, and cooperative societies. The price indexes and the figures on strikes are brought down to 1936, but the data on the other topics are for earlier years.

Annual report on administration of Factories Act in Bengal for year 1936. Alipore, Chief Inspector of Factories, 1937. 91 pp.

Contains information on number of factories by industry, inspections made, employment, sanitation, housing, welfare, and safety. It is stated that so far as can be ascertained, wage rates in the principal industries did not materially change during the year.

Report of Millowners' Association, Bombay, for year 1936. Bombay, 1937. 445 pp.

Subjects of direct labor interest taken up in the volume include mill holidays and pay days, Payment of Wages Act and rules, and the proposals by the Bombay Government for the vocational training of educated youths.

Annual report on working of Factories Act (XXV of 1934) in Burma, for year 1936. Rangoon, Chief Inspector of Factories, 1937. 30 pp.

Covers employment, housing, wages, sanitation and health, safety provisions, accidents, and inspection.

The Canada year book, 1937: The official statistical annual of the resources, history, institutions, and social and economic conditions of the Dominion. Ottawa, Dominion Bureau of Statistics, 1937. xli, 1126 pp., maps, charts, illus.

Among the many topics taken up in this compilation are wages and hours of labor, employment and unemployment, unemployment relief, industrial disputes, industrial accidents and compensation therefor, labor organizations, old-age pensions, prices and cost of living, cooperative societies, and building construction. The latest statistics presented on these subjects are for 1935 or 1936. Average annual wages on steam railways taken from the volume are published in this issue of the Monthly Labor Review.

Annual report of Department of Labor, British Columbia, for year ended December 31, 1936. Victoria, 1937. 92 pp.

Summarizes activities of the labor department in connection with industrial relations, labor disputes and conciliation, factory inspection, employment, unemployment relief, and apprenticeship, and gives a résumé of labor legislation for the year covered. Data on wages and hours from the report are published in this issue of the Monthly Labor Review.

Administration report of Controller of Labor, Ceylon, for 1936. Colombo, 1937. 44 pp.

Data on wages from this report are published in this issue of the Monthly Labor Review. The report also contains information on labor legislation, unemployment relief, labor unions, industrial accidents and compensation therefor, labor recruiting, and housing.

Annuaire statistique de la République Tchécoslovaque. Prague, l'Office de Statistique, 1937. 317 pp. (In French.)

Subjects of labor interest covered in the volume include wages, strikes and lockouts, collective agreements, factory inspection, employment service, social insurance, and cooperative societies. The data are for 1936 or earlier years.

Labor in Japan. By Emory S. Bogardus. (In Sociology and Social Research, Los Angeles, University of Southern California Press, September–October, 1937, pp. 67–71.)

Discusses very briefly the standard of living, wages, labor unions, cooperatives, the family system, women in industry, farm laborers, emigration, and industrialization.

Annual report of Labor Department, Malaya, for year 1936. Kuala Lumpur, 1937. 127 pp., map.

The matters dealt with include recruiting of labor, wages, relief, land settlement, housing, strikes, and workmen's compensation.

New Zealand's labor government—its first year of office. By James Thorn. Wellington, [New Zealand Labor Party?], 1937. 62 pp.

Records legislative and administrative action taken by the labor government. Sections dealing with unemployment relief and labor legislation are documented with statistics.

Statistical report on prices, wage rates and hours of labor, unemployment, industrial accidents, etc., New Zealand, for year 1935, with statistical summary for Dominion from 1885 to 1935. Wellington, Census and Statistics Department, 1937. xli, 117 pp.

Social håndbok for Norge. Oslo, Norsk Forening for Socialt Arbeide, 1937. 863 pp.

This handbook on social conditions and social work in Norway consists of articles by different authors on income, cost and standards of living, housing and housing legislation, social insurance, unemployment relief, vocational training, prevention of accidents and occupational diseases, industrial disputes, labor unions, and other matters.

Palestine Royal Commission report. London, Secretary of State for the Colonies, 1937. 404 pp., maps.

Immigration and cooperative societies are among the many subjects discussed.

Aperçu sur l'inspection du travail en Pologne en 1935. Warsaw, Ministère de l'Assistance Sociale, 1936. 71 pp., folders.

Report on activities of labor inspectors in Poland in 1935, with information on protection of women and young workers, maternity protection, industrial diseases, social insurance, labor unions, employment, and industrial disputes.

Queensland year book, 1937. Brisbane, Government Statistician, 1937. 302 pp., maps.

This publication supersedes the former A B C year book. It includes data on employment, wages and working hours, unemployment relief and insurance, industrial accidents, workmen's compensation, trade unions, invalidity and old-age pensions, housing, and prices.

Statistisk årsbok för Sverige, 1937. Stockholm, Statistiska Centralbyrån, 1937. 396 pp.

Contains statistics of wages, employment and unemployment, work of employment offices, strikes and lockouts, collective agreements, prices and cost of living, social insurance, and cooperative societies. Some of the figures in the volume are for as late a date as 1937 but most of them are for earlier years. The table of contents, table heads, and footnotes to tables are in both Swedish and French.

Annuaire statistique [Turkey], 1935–36. Ankara, Office Central de Statistique, [1937?]. 502 pp. (In Turkish and French.)

Includes data on employment, classified by industry; number of wage earners and technical and administrative personnel in establishments which profit by the law for encouragement of industry; annual wage and salary payments in these establishments; and accidents in coal mines.

U. S. GOVERNMENT PRINTING OFFICE: 1937